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The Role of Knowledge for Policy Preferences:

Evidence from Argentina

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Doctor of Philosophy in Political Science

by

Alexandra Petrachkova

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ABSTRACT OF THE DISSERTATION

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Professor Daniel Simon Treisman, Chair

In this dissertation, I study the role of knowledge in policy preferences. In democracies, voters are often criticized for not being sufficiently informed when making their political decisions. Political scientists disagree about how consequential this ignorance is for the quality of democratic government. One camp emphasizes that people are capable of learning new information and that knowledge makes them change their views. Following this line of reasoning, I suggest using fundamental knowledge relevant to a specific policy domain rather than measuring knowledge that is directly related to the political world.

I focus on one policy domain – economic policies. I use the Global Financial Literacy test developed by Standard & Poor's as a proxy for economic knowledge. I ask respondents to complete this test at the end of the three original surveys that I conducted in Argentina in 2017, 2018, and 2019. In total, 10,457 individuals participated in the surveys. I choose this country to study the effect of knowledge on policy preferences because of a drastic change in economic policies in 2015.

I find that those who score higher on the test are more likely to support pro-market economic policies, such as elimination of trade barriers, elimination of subsidies, and integration into the world financial markets. My identification strategy includes using a measure of knowledge that is uncorrelated with the most important driver for policy preferences – partisan attachments- and conducting analysis in two different contexts – economic boom and recession. The latter helps address possible confoundedness between financial knowledge and other factors, such as social status, that are important both for knowledge and policy preferences.

In addition to observational evidence, I provide randomly selected respondents in the 2018 and 2019 surveys with survey treatments – passages in which consequences of economic policies in Argentina and Venezuela are discussed. The results largely support the view that information helps shape policy positions. I receive stronger results in 2018 than in 2019. In 2018, I find that respondents who received the treatment are more likely to support the open economy and the debt repayment. In 2019, the coefficients for the treatment dummies do not reach a conventional level of significance, although their signs are consistent with the hypothesis.

Overall, my findings suggest that fundamental non-partisan knowledge matters when it comes to policy preferences.

The dissertation of Alexandra Petrachkova is approved.

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CHAPTER 1

Introduction

1.1 Motivation

In a democracy, citizens are expected to feel comfortable with many complicated issues of the day. Individuals are routinely asked about their attitudes toward free trade, international affairs, the role of technology, social policies, or environmental problems. Evidence shows that people's opinions are superficial and unstable (Berelson et al., 1954, Campbell et al., 1960, Converse, 1964, Zaller, 1992). Researchers suggest that what people often lack to form genuine opinions is knowledge (Somin, 2006, Delli Carpini and Keeter, 1996). Many studies aim to evaluate the effect of knowledge and information on political decisions (Gilens, 2001, Bullock, 2011, Bartels, 2002). In doing so, they usually use measures of knowledge directly related to the political world – general political knowledge or knowledge of policy-specific facts.

I suggest going one step back and estimating the effect of more basic and fundamental knowledge on political preferences. My idea is simple. If someone has studied the greenhouse effect, this knowledge may be useful for a discussion about climate change. If one can locate Syria on a map, it might help to organize her thoughts about the nature of the conflict. If one knows how to calculate percentages, it is probably easier to form an opinion about the degree of state intervention in the economy.

In this dissertation, I study the effect of specific knowledge on a specific policy domain. In particular, I am interested in the role of economic knowledge in economic policy preferences. My primary research questions are as follows: Do people with relevant knowledge have preferences different from those who remain ignorant? Can people learn new information and update their preferences? In what way are knowledgeable people different from the rest of the population?

1.2 The Argument

My central argument is that knowledge matters when it comes to policy preferences. Following Delli Carpini and Keeter (1996), I define knowledge as a range of factual information about a certain knowledge domain stored in long-term memory. This fundamental knowledge is relevant to a policy domain but is not necessarily directly related to any political issue in question. I focus on one policy domain – economic policies. I am interested in the role of economic knowledge in economic policy preferences.

There is an ongoing debate in political science about how much and what exactly citizens should know to make meaningful political choices. Some scholars argue that the public can rely on the endorsements of "enlightened educators" to arrive at political judgments similar to those they would have reached if they were "well informed" (Lupia, 1994). Lupia (2015) notes that the US Congress passes, in an average year, around 200 bills into law - and this is just at the national level - while there are many other regulations that may affect citizens' lives. For him, it is unrealistic to expect that citizens examine in detail the vast majority of these rules. Other researchers argue that "educators" often have incentives to manipulate, disguise, and misinform.

For them, we should not give up in our attempt to educate the public because better informed citizens make different and probably better political choices (Hochschild and Einstein, 2015). Better educated citizenry leads to higher quality democracy (Delli Carpini and Keeter, 1996). It can happen through several mechanisms. For example, Cook et al. (2010) exploit the natural experiment to show that citizens who become more informed about government activities tend to trust more government institutions. Caplan (2011) argues that popular misconceptions are the greatest obstacle to sound economic policy. For him, the most direct path to make democratic governments work better is to correct people's biases about economic policies. In a review essay, Pande (2011) summarizes that information about political process and political performance improves electoral accountability.

Why is it difficult to acquire knowledge and apply it to the formation of political opinions? Lupia (2015) mentions the main reason: there is too much to learn. People are too busy with their daily routines to keep track and think about issues of the day, unless they find politics entertaining (Zaller, 1992). Politicians compete for people's attention, and when they are successful, they are able to convey their agenda. As a result, we learn only pieces of information. Thaler (2019) summarizes three stages in which biases may arise: people may have had different priors, they may perceive differently the informativeness of the news, or they may have different inference processes (motivated reasoning). When they do acquire some knowledge, even if it is wrong, it becomes very difficult to change their minds (Hochschild and Einstein, 2015, Flynn et al., 2017, Nyhan and Reifler, 2010). Sometimes even if they correct factual knowledge, that does not always translate into an update of preferences (Barrera et al., 2019).

Our understanding of the process of knowledge acquisition helps acknowledge why it is difficult to educate people about political matters. Two widely recognized models of

communication developed by psychologists – the elaboration likelihood model (ELM) and the heuristic-systematic model (HSM) – suggest that an individual engaged in information processing either carefully considers the content of a message or instead relies on other cues related to the message or messenger (Petty and Cacioppo, 1980, Chaiken, 1987). When it comes to inherently complex political world, it is rare for an individual to engage in thoughtful elaboration of the true merits of information presented to her to form a political opinion. Most people are not experts in most political issues of the day. More often, they rely on shortcuts, such as party labels, leaders, group identities, when taking positions on issues. As Lupia and McCubbins (1998) put it, people choose what and from whom to learn.

When political scientists are concerned with the question about the effect of knowledge on political outcomes, they usually use two measures of individual competence that are directly related to politics, political knowledge, or knowledge of policy-specific facts. Although these measures aim to evaluate objectively the amount of factual knowledge in one's head, they contain biases that originate in the process of knowledge acquisition.

The first measure, political knowledge, is often defined as knowledge of facts about the political world, such as who represents one's region in the parliament or who has the right to declare a war. Political knowledge test scores tell more about the exposure to elite communication than about the importance of knowledge itself (Zaller, 1992). In a recent study in Argentina, Lupu et al. (2019) also find that politically knowledgeable people are more likely to associate themselves with political parties. Political knowledge is an amalgam of engagement, interest, and cognitive capacity to understand politics. It is not political knowledge that shapes political preferences but rather a combination of these elements. We should take this into account when we interpret the results of studies that aim to measure the effect of political knowledge on

preferences. These studies are observational because it is hard to experimentally manipulate this kind of knowledge. Examples include the study of Popkin and Dimock (2000), who find that citizens more informed about political institutions are less likely to fear new immigrants and their impact on the country's economy. Delli Carpini and Keeter (1996) find evidence that specific knowledge of civil rights and civil liberties increases tolerance for unpopular minorities. Bartels (2007) argues that Americans would not support the 2001 and 2002 Bush tax cuts if they were better politically informed.[1] Althaus (1998) simulated from the original survey data what collective preferences would look like if the public were "fully informed". The average change was 7 percentage points, with greater impact on fiscal policy questions. "Fully informed" individuals would prefer to pay more taxes to increase government spending and reduce the deficit.

The second measure is knowledge of policy-specific facts. On an individual level, such knowledge is often skewed toward one point of view or another because people have difficulty learning facts that go against their group loyalties. Bartels (2002) quotes the 1988 and 2000 National Election Surveys (NES) in which individuals were asked batteries of factual questions about the Reagan and Clinton administrations, respectively (such as whether unemployment, inflation, the crime rate, etc. increased, decreased, or remained the same). Both presidents were successful in improving these macro conditions. However, Democrats in the first survey were reluctant to admit that unemployment and inflation decreased during the Reagan times. Republicans (even the best informed) were a lot less willing to agree that Clinton significantly reduced the budget deficit.

[1] With the same data Lupia et al. (2007) show that Bartels's claim is true only for Democratic respondents. Knowledgeable liberals and Democrats showed less support for tax cuts than did people with similar party identification but less information.

But suppose one has learned correct facts on a relevant issue. Does it change her perspective on this issue? Barrera et al. (2019) demonstrate that it is not always the case. In a randomized online experiment they expose subgroups of French voters to fact-checking of claims made by the extreme-right candidate Marine Le Pen. They find that the exposure to facts alone does not decrease the support of the candidate, although people do correct their knowledge. Their explanation for this puzzle is that the discussion about immigration raises the salience of this issue, and Le Pen gains support because immigration is central in her campaign. However, other studies show that knowledge does shape preferences. Bullock (2011) conducts two experiments in which participants are given texts about a policy debate – healthcare benefits for the poor – with or without party cues and finds that "attitudes seem to be affected at least as much by that information as by cues from party elites" and "party cues do not inhibit thinking [about policies]." Gilens (2001) demonstrates that providing respondents with policy-specific facts, such as the direction of change in the crime rate, foreign aid, or unemployment, changes their political judgments "they would hold otherwise." Scholars who conducted studies outside the US come to similar conclusions. In the Deliberative Poll, the British exposed to a conversation about rising crime changed their mind about the issue (Luskin et al., 2002). Italians who learn about the pension reform in the experimental intervention are more willing to support it (Boeri and Tabellini, 2012). Civic Education Program in the Democratic Republic of the Congo changed participants' knowledge of the decentralization process in the country and through it their attitudes towards this issue (Finkel and Rojo-Mendoza, 2012). In a review essay, Gerber and Green (1999) conclude that we have more evidence that people with different preconceptions update their beliefs in accordance with Bayesian logic (in the same direction and by approximately the same extent, regardless of partisan ties) than that they do so in accordance

with the logic of biased learning. More generally, Hochschild and Einstein (2015) argue that "information may offset motivated reasoning or partisan framing rather than being put on their service".

Researchers who study the effect of knowledge for politically-neutral scientifically-driven issues come to similar conclusions. Information not only helps people improve their level of knowledge but actually changes their behavior.[2] For example, environmental awareness and concern is enough for somebody to participate in waste recycling (Aini et al., 2002). Knowledge deficiency causes vaccine negativity (Krishna, 2018). Awareness of risk factors of smoking resulted in the decline of the number of smokers around the world (Link and Phelan, 2009).[3]

My work is related to the literature that studies the role of knowledge for political outcomes but differs in one important way. Instead of focusing on political knowledge or knowledge of policy-specific facts, I focus on fundamental knowledge that helps people critically treat information related to a policy domain and understand causal relationships. This knowledge is very likely to have been acquired in a classroom or through life experience in a politically neutral context. In the psychological framework of information processing, this means that argument quality was more important than superficial cues. When a professor teaches a student how to calculate percentages, the student just tries to understand and learn this information with minimal resistance. If this knowledge is relevant to policy choices, it

[2] In several experimental studies, Brendan Nyhan shows that behavior does not necessarily change, even when misperceptions are corrected. For example, Nyhan and Reifler (2017) demonstrate that corrective information about flu vaccine safety reduces beliefs in the myth that this vaccine can give one the flu but also reduces intent to vaccinate. Nyhan et al. (2014) test the effectiveness of different interventions (texts, images, dramatic narratives) on the reduction of misperceptions about the measles-mumps-rubella vaccine. Some interventions were effective for correcting misperceptions but not for enhancing the decision to vaccinate. Carey et al. (2020) show that corrective information helps reduce misperceptions about yellow fever (but not Zika). However, updated knowledge does not affect support for preventive policies.

[3] Another explanation for this change in behavior can be the agreement of the elites on the issue. In this situation, people are exposed to only one point of view. They learn to understand the issue in a way elites want them to through cue taking (Zaller, 1992).

potentially becomes a more powerful tool for assessing the role of knowledge in policy preferences and a more efficient way to educate the public.

1.2.1 Focus on preferences

I choose preferences as the main dependent variable because they are a starting point in the logic of a democratic theory. According to this theory, people develop genuine preferences that reflect their interests. Then, they choose parties that are committed to converting these preferences into policy choices. They elect politicians who promise to implement these policies and make politicians accountable if they fail to do so. Although the evidence suggests that positions on issues rarely become a driver for choosing parties and politicians, theoretically, preferences remain the core characteristic that describes the relations of an individual with a political world.

In a democracy, there are no institutions that directly translate people's preferences into policies (Manin et al., 1999). In theory, people could hold politicians accountable for failure to provide policies they prefer. Evidence suggests that they do not always use this tool and continue electing politicians who promised one set of policies in a campaign and then switched to very different ones (Stokes, 2001). Since the dawn of public opinion research, we know that voters often are largely not aware of their preferred politicians' positions on issues of (Converse, 1964). Politicians spend more time trying to get more votes in the next election by providing better economic performance rather than communicating their policy agenda. Under certain conditions, people change their preferences. This change is usually elite-driven. Voters adopt their preferred politicians' positions as their own, when they do learn them (Lenz, 2013, Druckman and Lupia, 2016). In this case, individual preferences would be biased. However, among all variables that

describe interactions between voters and politicians, preferences, arguably, remain the least manipulated one.

Theoretically and empirically, one can expect that knowledge would play a greater role in preference formation than in other political outcomes, such as party identification or voting decisions. Therefore, it would be easier to estimate the effect of knowledge on preferences than on other variables in which political scientists are usually interested.

Our understanding of the functioning of a democracy comes mostly from the developed world, the US in particular. Lupu et al. (2019), who attempt to build a theory of voter behavior in developing democracies, argue that, "at their most basic level, voting decisions in developing democracies generally follow logics that are similar to those in advanced democracies." Specifically, voters base their choices on some combination of group identity (including parties), issue positions, performance consideration, and campaign persuasion. The weight of each element depends on a context and individual characteristics. Because parties are often weak and politicians' issue positions are vague, performance considerations and campaigns may play a more important role than they do in advanced democracies (Greene, 2011, Lewis-Beck and Ratto, 2013). However, if some voters happen to be partisans or they develop preferences, the behavioral logic underlying these considerations remains similar to that in developed countries. The evidence about the importance of voters' issue positions in Latin America is mixed. Baker and Greene (2011) argue about the existence of "well-reasoned voting on economic policy issues and electoral mandates [to pursue these policies]." McCann and Lawson (2003) demonstrate lack of stability in policy attitudes among Mexicans. Lupu et al. (2019) conclude that the discussion about policy areas played a very limited role for the majority of voters in the 2015 presidential campaign in Argentina.

1.3 Why Argentina?

A drastic change in economic policies that occurred in Argentina from the 2011-2015 administration to the 2016-2019 administration allows me to estimate more precisely individual preferences for these policies. Each individual had an opportunity to compare two very different sets of policies and evaluate their effect on her well-being and on the economy as a whole.

When a surveyor approaches an American citizen with a question: "What do you think about our welfare policy?" she would probably not know what to say. In countries like the US, most policies are consistent across administrations, even when a Democrat replaces a Republican and vice versa. Unless they become salient campaign issues, policies are rarely debated in the news. It is challenging to evaluate the impact of most policies on individual's well-being. Instead, they remain "out of reach, out of sight, out of mind" (Lippmann, 1925). Taking these factors into account, it is not surprising that most people have difficulties forming an opinion on most issues (Zaller, 1992, McCann and Lawson, 2003). Their preferences are estimated by polls with a large measurement error (Ansolabehere et al., 2008).

In developing countries, the policy-making field is more dynamic. Argentina is known for its radical switches in key policies from time to time. The country goes back and forth between liberalization and protectionism, between integration and isolation, between free market and state intervention (Spiller and Tommasi, 2003). I take advantage of the recent switch, when a center-right politician, Mauricio Macri, was elected a president in 2015 and replaced a left-wing populist, Cristina Kirchner. This situation allows me to ask people about their attitudes towards one set of policies, which is very different from another set of policies that was in place before

2015. They had an opportunity to compare the outcomes of both. Rephrasing Lippmann (1925), I could ask something about which they could reach, see, and make up their mind.

Argentina was governed by a peronist, Nestor Kirchner, in 2003-2007 and, then, by his wife, Cristina Kirchner, in 2007-2015. Both Kirchners pursued populist policies. The federal government heavily subsidized utilities (gas, water, electricity) and public transportation. Various enterprises were re-nationalized, including YPF, the largest oil company, Aerolineas Argentinas, and the national postal service. To protect domestic industries, imports were restricted. Neither companies nor individuals could buy foreign currency without special permission. The government restructured most of the debt but refused to pay the holdout creditors (those who remained after debt restructuring). The economy did well while international commodity prices remained high. Over time, however, subsidies and distortions increased. Economic growth slowed down in 2012—2014 (1.4% per year). By 2014, the Central Bank reserves had declined to less than $30 billion from $50 billion two years earlier. The budget deficit reached 4.8% of GDP in 2015. Inflation was 30-40% per annum. Argentina had stayed out of international financial markets for 15 years.

In November 2015, a center-right politician, Mauricio Macri, won the presidential election with just a 2.7% margin in the second round against the Kirchnerist candidate Daniel Scioli. Macri received 3% fewer votes in the first round. He reversed many policies implemented by the Kirchners. During his presidency subsidies for utilities and transport were gradually removed. As a result, electricity became 20 times more expensive, gas 10 times, water 9 times, and public transport 6 times.[4] He removed capital controls and lowered trade barriers.

[4] According to the Department of Statistics of the city of Buenos Aires (https://www.estadisticaciudad.gob.ar/eyc/?p=28446).

Specifically, export duties on wheat, beef, and corn were eliminated, and export tariffs on soybeans were reduced from 35% to 30%. Also, the Kirchner government had restricted the export of a number of agricultural products, such as beef and crops. The Macri government removed these restrictions. Previously, all imports were subject to authorizations issued on discretionary criteria. Import regulations became more transparent. Finally, the Macri government reached agreements with the "holdout" creditors, which led to the end of Argentina's 2001 default on sovereign debt.[5]

During Macri's presidency the economic performance was variable and most of the time disappointing. In 2016, GDP shrank by 3.7% and consumer prices grew by 41%. The next year was more economically successful. According to the World Bank, in 2017 Argentina experienced economic growth 2.7%. The inflation was recorded at 24.8% - the lowest rate in years. Also, wages grew by a higher rate than did inflation, resulting in a real income rise. Unemployment was 8.4%, and the poverty rate fell to 25.7%. The real peso appreciation reached 24% during 2016-2017. These favorable results let the incumbent party Let's Change win the mid-term elections in October 2017. The economic conditions changed in the first half of 2018. Argentina experienced the largest drought in 50 years, which resulted in lower exports and higher food inflation. In addition, prices for soybeans, a major export, were at the lowest levels in a decade. Finally, the economic growth of 2017 was fuelled, to a great extent, by foreign investment. The amount of international capital decreased after rising US interest rates. As a result, the peso depreciated against the dollar by more than 100%. The government had to ask the IMF to provide it with a $57.1 billion loan to stabilize the economy. In 2018 the economy contracted by 2.5%, in 2019 by 2.2%. Inflation reached almost 48% in 2018 and hit 53.8% in

[5] http://argentinareforms.csis.org/

2019, the highest rate since 1991. At the same time, wages increased by 29% and 35% in these two years, so that real income declined. In 2019, the unemployment rate rose to more than 10% and the poverty rate to more than 35%. After more than a year-long recession, Macri's attempt to be reelected failed. In October 2019, the Kirchner candidate Alberto Fernandez won the presidential election in the first round with 48.24% (Macri received 40.28%). Cristina Kirchner had a constitutional right to run for presidency herself, but she preferred to choose a successor and become vice-president.[6]

1.4 Preview of the findings

The analysis presented in this dissertation is based on the original surveys conducted in Argentina in the months of January and February in 2017, 2018, and 2019. 2,892, 3,840 and 3,725 individuals participated in them, respectively.

At the end of each survey, I asked respondents to complete the Global Financial Literacy test developed by Standard & Poor's and used to evaluate financial literacy across the world in 2014.[7] I also asked questions about their attitudes towards recently implemented economic policies – elimination of trade barriers, elimination of subsidies for public transport and utilities, and the country's integration into the world financial markets. I find a strong correlation between financial knowledge and support for pro-market economic policies. Like in all observational studies, when one aims to measure the effect of knowledge, the biggest challenge is to

[6] A reaction of the financial markets can be an indication of how substantial and unexpected the change in economic policies was. Over a month, right before the first and after the second round of the presidential election 2015 the Merval index of the Buenos Aires Stock Exchange increased by 25%. During several days after the primaries in August 2019, when it became clear that Macri was hardly going to be reelected, this index was cut almost in half.

[7] https://gflec.org/wp-content/uploads/2015/11/Finlit_paper_16_F2_singles.pdf

disentangle the effect of knowledge from the effects of other factors correlated with it. Previous research shows that drivers for policy preferences can be grouped into two broad categories – partisan attachments and self-interest. Therefore, the first challenge in measuring the effect of knowledge would be to separate the effect of knowledge from the effect of party identification. I show that, unlike other conventional measures of knowledge, my knowledge measure is uncorrelated with partisanship. The incumbent partisans do not do particularly better (or worse) on the test. However, financially literate individuals tend to be better-educated wealthier males. Previous studies demonstrate that individuals with these traits are in a better position to take advantage of the opportunities provided by the free market (Brainerd, 1998, Ravallion, 2001, Panizza and Yañez, 2005). Therefore, they can support market-oriented polices because they gain from them, not because they know how the economy functions. I address this issue by conducting the analysis in two different contexts – economic boom and recession. The 2018 survey was preceded by an economically successful year, particularly favorable for middle and upper classes. I find that each correctly answered question on the test adds 3.9 percentage points to the approval of an open economy and the elimination of subsidies and 3.7 percentage points the debt payment in the 2018 estimates, given the overall level of support ranges from 29.7% to 38.3%. The 2019 survey was carried out in the middle of the economic crisis that reversed the fortunes of middle class. However, I continue to observe the relationship between financial knowledge and economic policy approval. More financially literate people (measured by each point scored) were more supportive of the opening of the economy by 2.5 percentage points, the elimination of subsidies by 3.4 percentage points, and the debt payment by 4.1 percentage points in 2019, while the average approval rate varies from 27.3% to 34%. This result suggests that it is knowledge itself that drives support for economic policies.

To ensure that my results are not artifacts of a particular knowledge test, I supplement the 2019 survey with an economic knowledge test. I adapted four questions from a longer Economic Literacy Quiz developed by the Council for Economic Education.[8] This knowledge measure is also uncorrelated with partisanship. The effect of economic education appears to be lower in magnitude but nonetheless is statistically and economically significant. Each correctly answered question on the quiz adds 1.8 percentage points to the support for the open economy, 1.6 percentage points to the elimination of subsidies, and 4.2 percentage points to the debt payment.

To establish the causal link between knowledge and preferences for pro-market economic policies, I embedded two survey experiments in the 2018 and 2019 surveys. Randomly selected respondents were provided with either "an economic lesson" treatment or "a case study" of Venezuela treatment regarding the consequences of certain economic policies. The goal of the treatments was to educate respondents about the consequences of anti-market economic policies on the economy and individual well-being. In the 2018 survey, respondents in the treatment condition were, indeed, more likely to support the elimination of trade restrictions and the repayment of the debt. Respondents who received "an economic lesson" had a higher probability of approving the open economy by 8.3 points and the debt payment by 9.6 points. Those who read about Venezuela's experience had a higher probability of favoring the open economy by 10.2 points and the debt payment by 8.8 points. In the survey carried out a year later, I do not reach the same level of significance, even though there were 45% more observations in both treatment and control groups. In the 2019 sample, the coefficients for the treatment dummies are relatively large in magnitude, and their signs are consistent with the hypothesis, though they are marginally significant at the 14-19% level.

[8] https://www.councilforeconed.org/quiz/economic-literacy-quiz/

In addition, I analyze other outcomes for which financial knowledge might matter, beyond policy preferences. Specifically, I test three hypotheses – whether financially educated individuals have more expertise about current economic events, whether they report their income truthfully, and whether they distinguish long-term challenges that the country faces from short-term economic fluctuations. These outcomes are relevant for the quality of democracy. I use the data from the second wave of the 2017 survey (participants of the survey of January-February 2017 were contacted 5 months later) to demonstrate that financially educated respondents have a higher probability of answering a typical question correctly on a policy-specific knowledge test – about the dynamics of consumer prices. I reach this result controlling for partisanship, the strongest predictor of answers to questions of this sort. The question was as follows: "Would you say that during January-June 2017 the inflation was higher, lower, or the same as in January-June 2016?" The right answer is that inflation in January-June 2017 was more than twice as low than was the inflation in January-June 2016. This sharp decline was discussed by the media. I find that each correctly answered question on the financial literacy test increases the probability of the right response to the question about inflation by 2.3 percentage points.

I find also that financially knowledgeable people do not seem to hide their income. I calculate unreported income by comparing self-reported income and expenditures. The greater the discrepancy between predicted income, based on expenditures, and self-reported income, the higher the probability that one underreports her income. I find a positive correlation between income reporting and financial knowledge. This result holds, even when controlling for all types of employment.

Finally, I show that financially educated people distinguish long-term obstacles for economic development (e.g. corruption, education quality) from economic indicators that are

subject to short-term fluctuations and, possibly, consequences of long-term problems (e.g. inflation, unemployment). I find that individuals with higher level of financial knowledge more often name corruption as the main problem of the country in the 2018 survey. This result does not hold in 2019, likely due to the economic crisis that shifted the focus from corruption to the current economic indicators even among the financially literate. At the same time, the coefficient of financial knowledge is significant in both 2018 and 2019 in regressions with education as the dependent variable. This evidence suggests that financially educated people think more deeply about issues of the day and the long-run perspective.

1.5 Plan of the dissertation

The dissertation is organized as follows. In Chapter 2, I present the observational evidence of the importance of economic knowledge for economic policy preferences. I analyze whether more financially educated people are more likely to support pro-market economic policies. I find that financial knowledge measured by the score on the Financial Literacy test is associated with a higher support for these economic policies. I demonstrate that this measure of individual competence is not correlated with partisan attachments. I address the possible confoundedness between financial knowledge and a winning status by conducting my analyses in two different economic contexts – economic boom and recession. I receive consistent results both in 2018 and 2019. In 2019, I supplement my analysis with another measure of knowledge – economic literacy quiz. The test results are also uncorrelated with party identification. Those who score higher on this test are more likely to support three policies in question.

In chapter 3, I present the experimental evidence. Two survey experiments were embedded in the survey in 2018 and 2019. Randomly selected respondents were given either "an economic lesson" or "a case study" of Venezuela treatments (or remained in the control group). I show that respondents in the treatment condition are more likely to support pro-market economic policies in 2018. The results are weaker in 2019, although the coefficients of the treatments dummies are economically large and their signs are consistent with the hypothesis. I explain the variability in results by the economic shock that happened in the interval between two surveys.

In Chapter 4, I look at other outcomes that are relevant for the quality of democracy for which financial knowledge might matter, beyond policy preferences. I show that financial knowledge is positively correlated with another measure of individual competence – knowledge of policy-specific facts. Also, financially knowledgeable people do not seem to hide their income. Finally, my findings suggest that people with higher financial knowledge are more likely to consider corruption as the main problem of the country. I interpret this as their ability to distinguish between long-term drivers for economic development and short-term fluctuations that may be consequences of these long-term problems.

CHAPTER 2

The effect of financial literacy on policy preferences:

Observational evidence

Having a knowledgeable citizenry that uses relevant knowledge to inform public choices is normatively desirable in a democracy. However, there is abundant evidence that reality falls short of this ideal. Political scientists disagree about the answer to the fundamental question about democracy - do knowledgeable individuals make choices different from those who remain ignorant? Some scholars argue that voters do not have resources and capabilities to carefully study the content of political debates (Lupia, 1994). They have to rely on informational shortcuts and thus emulate the behavior of well-informed voters. Other studies show that, equipped with relevant knowledge, voters arrive at political judgments different from those they would have reached if they had remained ignorant (Gerber and Green, 1999, Jerit and Zhao, 2020, Hill, 2017, Bullock, 2009, 2011).

It is challenging to evaluate the effect of knowledge on political preferences because it is often correlated with other important drivers of political opinions, such as group attachments. Specifically, political scientists focus on two measures of knowledge – political awareness and knowledge of policy-specific facts. However, both types of knowledge result from group loyalties (Zaller, 1992, Bartels, 2002). In particular, political awareness—defined as knowledge of factual information related to politics (such as who was elected governor of a given state or how many chambers there are in the parliament)—indicates an individual's level of exposure to

political communication and the strength of that individual's identification with a party (Zaller, 1992, Baker et al., 2006). Due to group attachments, the tendency is to learn policy-specific facts consistent with their partisan loyalties. When one's party is in office, inflation seems to be under control. If a political opponent is in office, inflation is perceived to be on the rise, no matter what the truth is (Bartels, 2002, Bullock and Lenz, 2019).

In this chapter, I investigate the role of fundamental knowledge in policy preferences. I focus on knowledge relevant to a policy domain but nonetheless independent of political attachments. More specifically, I am interested in measuring economic knowledge that may affect economic policy preferences. To do so, I measure economic knowledge with the Global Financial Literacy test developed by Standard & Poor's and used to evaluate financial literacy in 140 countries. I include this test in original surveys I conducted in Argentina. In this chapter, I present evidence from the 2018 and 2019 surveys of 3,840 and 3,725 individuals. I find that financially literate people are more likely to support pro-market economic policies. Each correctly answered question on the four-question test increases the probability of support for the elimination of the trade barriers by 2.4-3.9 percentage points, the elimination of subsidies for utilities and public transportation by 3.3-3.9%, and the repayment of international debt by 3.5-4.1%, given the overall level of support for policies ranges from 27% to 38%. The effect of financial education is robust with respect to the inclusion of controls for party identification. The results are also robust with respect to the inclusion of controls for economic conditions. The economic situation in Argentina changed dramatically in the interval between the two surveys. These changes altered the distribution of economic winners and losers among voters. Those who relatively won before 2018 relatively lost in 2019. This allows me to examine the possibility that financially educated people were policy winners and their support for policies was due to

unobservable factors related to their winning status. The coefficients for financial education remain economically and statistically significant both during good and bad economic times. These results suggest that it is financial knowledge itself that increases support for pro-market economic policies. In addition, I perform propensity score matching regressions in which I compare individuals similar by key demographic characteristics (income, education, gender, age, party ID), but some are financially knowledgeable and others are not. The main result holds. Individuals with higher financial knowledge are more supportive for market-oriented policies than are their less knowledgeable peers.

One may argue that the content of the financial literacy test is more suitable to evaluate math skills rather than economic knowledge. To check the robustness check of the main result, I added an economic literacy quiz to the 2019 survey. I adapted four questions from a longer 20-question Economic Literacy Quiz developed by the Council for Economic Education to test American K-12 students. I show that economic literacy is not correlated with political attachments and has a positive effect on preferences for pro-market policies. Each correctly answered question in the economic literacy quiz increases the probability of approval for the opening of the economy by 1.8 percentage points, the elimination of subsidies by 1.6-1.7 percentage points, and the debt payment by 4.2-4.3 percentage points.

2.1 Theory and hypothesis

Why would people who have learned more about economics be more likely to support market-oriented economic policies? First, economic literacy may help people understand the consequences of policies that cannot be observed in the short-run or, perhaps, at all. For

example, some economic policies have a J-curve effect, when economic performance worsens at the beginning and recovers later. To illustrate, the elimination of export tariffs immediately leads to a larger fiscal deficit, but it stimulates export-oriented domestic production and, with some lag, exports. Thus, economic knowledge can be useful because individuals who posses this knowledge envision the entire picture, while those who lack it see only the downward trend. Knowledge makes them patient and confident.[9] Second, knowledgeable individuals are less uncertain about how they will be affected by a new policy. Fernandez and Rodrik (1991) show that in cases when the majority of the population wins from a policy implementation but individuals are not sure whether they are winners or losers, they prefer the status quo. When a policy is efficiency-enhancing, the support for it among people with economic knowledge is higher. Third, knowledgeable individuals can distinguish the effect of policies from the effect of other factors on economic performance. Voters are known for their blind retrospection when they punish incumbents for bad economic times and reward them for good economic times, even though these conditions may be exogenous to the incumbent's policy-making (Huber, Hill, and Lenz, 2012, Campello and Zucco, 2016). Specifically, the Argentine government tried to communicate that the economic crisis of 2018 was mostly a result of unfavorable external conditions beyond government control rather than a result of the implemented economic policies. In particular, the worst drought in 50 years led to a reduction of the annual GDP growth between 0.5% and 1% because of lower exports and higher food inflation.[10] In addition, prices for soybeans, a major export, were at the lowest levels in a decade. Finally, the economic growth of

[9] Falk et al. (2018) show that patience is positively correlated with income, a number of variables capturing a spirit of capitalism, a number of biogeographic variables that previously were related to economic development, educational attainment, cognitive skills, and math skills

[10] https://www.infobae.com/economia/2018/02/28/los-7-efectos-que-generara-en-la-economia-la-peor-sequia-de-los-ultimos-44-anos-en-la-argentina/ (in Spanish)

2017 was fuelled, to a great extent, by foreign investment. The amount of international capital decreased after the increase in US interest rates.

The ability to foresee the long-term effect of a policy, more certainty about one's financial well-being in the aftermath of policy implementation, and the ability to distinguish between the effect of policies and the effect of other factors on economic outcomes are possible mechanisms behind the effect of knowledge *per se*. Other mechanisms behind opinion formation driven by knowledge may exist.

However, there may be alternative explanations for the relationship between financial education and the support for pro-market policies. First, it is possible that financially literate people benefit as a result of these policies. This status may be manifested in several features. For example, they may benefit because they are wealthy. People with higher income may hope to gain more in a free market.[11] Market-oriented policies usually mean lower taxes and less regulation. Richer people directly benefit from lower taxes. Also, richer people are usually more entrepreneurial, hence benefit more from deregulation. They also have resources to survive the adjustment. Previous research finds evidence of the correlation between pro-market policy preferences and income (Baker, 2009, Graham and Pettinato, 2004, Stokes, 2001a). The relationship between social class and support for the market economy was documented in transitional economies (Fidrmuc 2000a, 2000b). Even in the United States, wealth is associated with the Republican party, known for its pro-market positions (Green et al., 2002). Additionally, pro-market voters may be employed in a winning industry.

[11] There is an ongoing debate among economists as to whether the poor gain from economic growth. Dollar and Kraay (2002) argue that growth is good for the poor because it increases average income without producing major income distribution shifts. In contrast, Ravallion (2001) points to a large variation in outcomes among countries. In many cases, growth raises inequality because the upper classes are in a better position to take advantage of the opportunities afforded by the expanding economy. In other words, the poor do not lose, but they also do not gain as much as those to the right in the income distribution.

Second, financially literate individuals may happen to be partisans of a certain political camp. As Achen and Bartels (2016) state, "people tend to adopt beliefs, attitudes, and values that reinforce and rationalize their partisan loyalties." That means some people like the incumbent and her party and, then, support policies they implement. They approve pro-market policies not because of their knowledge but because they liked the incumbent in the first place.

In this chapter, I test the following hypothesis:

Hypothesis 1: Economically educated individuals support pro-market economic policies because of their economic knowledge *per se.*

2.2 Empirical strategy

2.2.1 Dependent variables

I am interested in the effect of the economic knowledge on economic policy preferences. The three dependent variables measure attitudes towards specific economic policies: the opening of the economy, the elimination of subsidies, and the historic debt payment. The questions are as follows:

- "Do you approve or not the elimination of export and import restrictions (the abolishment of export quotas, end of capital control, introduction of zero export tariffs for meat, grains, etc.)?"
- "Do you approve or not the reduction of public service subsidies in Argentina (subsidies of electricity, gas, water, public transportation)?"

- "Do you approve or not the Argentina's payment of the historic debt to holdout bondholders?"

These policies would be familiar to Argentine citizens because the Macri government implemented them in 2016-2019. To integrate the previously isolated economy into the world market, the new government removed the capital controls. Export tariffs on wheat, beef, and corn were eliminated, and tariffs on soybeans were reduced from 35% to 28.5%. Import restrictions were relaxed.

The new administration began cutting the subsidies for utilities in its first months in office. Between December 2015 and March 2019, electricity became 20 times more expensive, gas 8.5 times, and water 7 times in the city of Buenos Aires. Public transportation became 6 times more expensive. Although the most vulnerable categories of consumers could apply for discounts, the elimination of subsidies increased the share of utilities in the consumption basket from 4.2% to 10%, according to the estimates of the consultancy OJF.[12] At the same time, the generous subsidies that previously had been given to everyone, including middle and upper class families and companies, were one of the reasons for the budget deficit and overconsumption.

Finally, in 2016 Argentina paid off its debt on the holdout creditors' terms. The dispute concerned whether these holdout bondholders should be fully compensated for their unlucky investment, even though they refused to accept Argentina's offer during the debt restructuring. The new government opted for payment in order to obtain access to international financial markets.

[12] https://www.infobae.com/economia/2019/02/24/golpe-al-consumo-el-gasto-en-servicios-publicos-en-los-hogares-duplica-el-nivel-de-2015/

2.2.2 Explanatory variables. Knowledge tests

Evaluating the effect of economic knowledge requires a measure of economic knowledge that is independent from political inclinations or other group-based attachments. I use a Global Financial Literacy test developed by Standard & Poor's that has been used to evaluate financial literacy across the world in 2014.[13] It consists of four questions which measure fundamental concepts for financial day-to-day decision-making: risk diversification, inflation, basic numeracy (interest), and interest compounding. This list of questions, offered to respondents at the very end of the surveys, is as follows:

Q1: Suppose you need to borrow 100 U.S. dollars. Which is the lower amount to pay back: 105 U.S. dollars or 100 U.S. dollars plus three percent?

Q2: Suppose over the next 10 years the prices of the things you buy double. If your income also doubles, will you be able to buy less than you can buy today, the same as you can buy today, or more than you can buy today?

Q3: Suppose you have some money. Is it safer to put your money into one business or investment, or to put your money into multiple businesses or investments?

Q4: Suppose you put money in the bank for two years and the bank agrees to add 15 percent per year to your account. Will the bank add more money to your account the second year than it did the first year, or will it add the same amount of money both years?

One may say that these questions test mathematical ability rather than economic knowledge. To make sure my results are not artifacts of a particular knowledge test, I use an

[13] https://gflec.org/wp-content/uploads/2015/11/Finlit_paper_16_F2_singles.pdf

alternative four-question measure as well. To the best of my knowledge, there is no short and universally understandable test that specifically evaluates economic knowledge. I adapt four questions from a 20-questions quiz of economic literacy developed by the Council for Economic Education, an NGO whose mission is to teach American K-12 students about economics.[14] The list of the questions included in the survey is as follows:

Q5: Imagine that Argentina stopped importing automobiles from Brazil, who would be most likely to benefit?

- Automobile manufactures in Brazil
- Consumers in Argentina
- Automobile manufactures in Argentina
- Do not know

Q6: Imagine that severe drought occurred in Argentina this summer. How would vegetable prices be affected?

- Prices will increase
- Prices will decrease
- Prices will remain the same
- Do not know

[14] https://www.councilforeconed.org/news-information/economic-literacy-quiz/

Q7: Imagine that banks increase interest rates from 40% to 50%. This would most likely encourage…

- Business to invest
- People to purchase housing
- People to save money
- Do not know

Q8: Imagine that the price of beef doubled and the price of poultry stayed the same. People would most likely buy…

- More poultry and less beef
- More beef and less poultry
- The same amount of poultry and beef
- Do not know

2.2.3 Other explanatory variables

The effects of information *per se* need to be disentangled from the effects of economic interests and partisan support. Citizens who benefited or expected to benefit from the policies would be more likely to support them, and citizens who supported Macri would have been more likely to favor his policies.

To account for the possibility that financially educated people are policy winners because of their wealth, I control for income. High tax evasion and the large informal economy are reasons why self-reported income may not be very informative in a Latin American context (Torgler, 2003). I add a number of variables to account for unreported income. Specifically, I include an individual's assets (home, car, computer, and access to hot water and the sewage

system) and consumption features (food security, private school for kids, commercial medical insurance, and recent travels). To account for the possibility that financially educated people are policy winners because they are employed in a winning industry, I include industry fixed effects. I use the national statistics agency (INDEC) classification of industries. During 2018, the growth within sectors varied greatly. For example, the automotive industry grew by 2.8%, while agriculture dropped by 15.1%. It is reasonable to assume that many financially literate people work in the financial sector, which grew by 4% despite the economic crisis.

To the question, "Is there any political party you feel closer to than others?", I code Macri partisans as those who choose the incumbent's party Let's Change and Kirchner partisans as those who choose the Front for Victory, one of the wings of the Peronist party founded by Cristina Kirchner.

I include the description of variables used in the analysis in Appendix 2.6.2.

2.2.4 The change in the economic situation

There could be unobservable variables correlated with both financial education and variables related to a winning status that confound the relationship between policy preferences and knowledge. People might support pro-market policies because they benefit from those policies rather than because they are well-informed. The economic situation changed significantly in the interval between the surveys, altering the economic situation of the middle class, the core support group of pro-market policies. In 2016-2017, middle and upper classes benefited more economically than did the poor because inflation was higher for products and services that represent a larger part of the budgets of the poor. In particular, public transport and utilities, major expenses for poor families, became up to 20 times more expensive. At the same time,

inflation for products and services whose price depends on the exchange rate of the peso, such as imported goods and travels abroad, was lower than general inflation. These items usually represent a relatively larger share of the budgets of upper and middle class families. In 2016-2017, a real appreciation of the dollar against the peso was 24%. For example, smartphones became more expensive only by 41% and tourist packages by 24%, while prices in general grew by 78% in the city of Buenos Aires over these two years.[15] The fortunes of the middle class moved in the opposite direction after April 2018. Devaluation of the peso by more than 100% made relatively more affluent Argentines reconsider their consumption and diminish the proportion of imported products and services, while prices of goods in the consumption basket of the poor increased at a rate no higher than that of general inflation. To summarize, relative economic winners in 2016-2017 became relative economic losers in 2018. This allows me to test the hypothesis regarding the effect of economic knowledge in two substantially different economic contexts. If these unobservable factors correlated with a winning status and financial education cause the effect in 2018, then the correlation between financial education and economic policies approval would drop to 0 or become even negative in 2019. But if economic knowledge causes the effect, then the relationship would remain significant.

2.2.5 Propensity score matching

In addition to OLS regressions, I perform propensity score matching regressions for both 2018 and 2019 samples. I match highly financially educated individuals (those who score at least 2 in the test) with low educated individuals (those who score 0) by income, education, gender, and age. I exclude observations with score "1" from both samples. In a separate propensity score model I add "Macri partisan" to the list of matching variables. I analyze whether individuals with

[15] http://www.estadisticaciudad.gob.ar/eyc/?p=89191

higher financial knowledge look differently upon pro-market policies when compared to individuals with similar key demographic characteristics but with low financial knowledge.

2.3 Data

Of the 3,840 and 3,725 individuals who participated in the two surveys, the average score in the financial literacy test is 1.22-1.29 (in Appendix 2.6.1 in this chapter I describe the sampling procedure, and in Appendix 2.6.3 I present the summary statistics of the variables used in the analysis). In my 2019 sample, 12.9% of respondents answered three questions correctly, 22.9% two questions, 30.4% one question, and 30.3% got all questions wrong.[16] Only 3.5% of respondents achieved the highest score on the test.[17]

On average, participants demonstrate better results on the economic literacy test, possibly because the questions are closer to real world experience and can be answered based on experience. Only 9.4% of respondents could not answer any single question. The distribution of the correct answers was the following: 16.3% answered one question correctly, 30.5% two questions, 29.5% three questions, 14.4% all four questions. People who do well on the financial literacy test generally receive a high score on the economic literacy test. The correlation between the test results is 0.41 (significant at the 1% level). One might expect that the correlation between

[16] The distribution of the results in 2018 is very similar to that in 2019 (0 correct answers – 34.7%, 1 - 28.6%, 2 - 20.7%, 3 – 12.1%, 4 – 4%).

[17] The test scores I get are considerably lower than those received from Argentina by Standard & Poor's in 2014 (in their test 28% of participants answered at least three questions correctly, slightly below the world average (33.3%)). I used the same wording of the questions for Spanish-speaking countries. However, I added the option "Do not know" to all answers, which was absent in the original survey. Otherwise, the test results would suffer from a large measurement error because the probability of choosing the right answer among 2-3 options purely by chance is so high. Additionally, the results could be different because the test was embedded in a longer questionnaire. There was no disclaimer before the test that a respondent was being evaluated for financial literacy. When people know they are taking an exam, they put more effort into their answers.

the test results that measure similar types of knowledge would be higher. The relatively low number reflects differences in the distribution of answers described above. Respondents find the economic literacy quiz easier. It seems that one can get it right based on common sense, while the financial literacy test requires some academic preparation and more specific experience.

The overall government approval dropped considerably from 2018 to 2019. If in the first year 28.8% said that they generally "approve of the government's course of action," while in 2019 only 15.6% thought so. Notably, the answers to questions about specific policies are a lot more stable on average. The approval rate of the opening of the economy decreased from 29.7% to 27.3%, the elimination of subsidies from 34.7% to 33%, the debt payment from 38.3% to 34%. However, the decline in support among wealthier individuals was considerably higher than among poorer individuals. Table 2.1 summarizes the change in support for policies by income group.

Also, fewer people identify themselves with the Macri's party Let's Change, a finding consistent with the drop in government support. In the 2018 sample, 14.3% of respondents "feel closer" to the incumbent's party, while in 2019 only 8.8% think so.[18] On the contrary, the percentage of those who "feel closer" to the party of the main competitor, Cristina Kirchner, the Front for Victory, grew slightly – from 16.6% to 17.2%.[19] In both years, half of the sample claims that they are not partisans of any political party.

[18] Another 4.3% identify themselves with Radicalists, who are close to the incumbent party ideologically but presented separate candidates in the latest elections.

[19] There are another 6.8% who identify themselves with the Peronist party in the 2019 sample. Kirchnerism can be considered as a movement within a broader Peronist movement. I included separate options for Kirchnerists and Peronists for the party identification question because these movements had separate candidates in the latest elections.

Table 2.1 The difference in support for pro-market policies by year by income group

The table presents the approval rates for the three economic policies (open economy, elimination of subsidies, debt payment) by year by income group. The values are given in percentages. Monthly income in the table is calculated based on the exchange rate in January 2019. Income categories were different in 2018 because of the different exchange rate between the dollar and the peso: <$460, $460-$900, $900-$1,580, $1,580-$2,370, >$2,370.

Monthly income*	Open economy			Elimination of subsidies			Debt payment		
	2018	2019	Diff.	2018	2019	Diff.	2018	2019	Diff.
< $280	21.8	22	0.3	27.8	27.1	-0.7	31.1	28.5	-2.7
$280-$580	29.2	29.9	0.6	32.2	35.2	3	40	35.4	-4.6
$580-$1,000	39.1	29.3	-9.8	44.4	36.3	-8.1	45.7	38.9	-6.8
$1,000-$1,500	44.6	33.8	-10.8	52.7	42.4	-10.3	50	41.1	-8.9
>$1,500	55.9	46.6	-9.3	55.9	50.5	-5.4	52.9	49.5	-3.4

2.4 Results

In Table 2.2 I provide evidence of the lack of correlation between party identification and financial knowledge. The coefficients for partisanship are not statistically significant, both in 2018 and 2019. This result suggests that there are no unobservable characteristics of Macri partisans, other than those already included in the model, that add to financial literacy and, therefore, to the support for policies.[20]

However, financial knowledge is correlated with other factors that, as I show later, play a role in support for pro-market policies. For example, the level of financial literacy rises with income. Compared to individuals whose income is below the minimum wage, the wealthiest respondents score higher by 0.21-0.36 points. The effect of education rises monotonically. Each educational degree obtained adds, on average, 0.14 points to the test score. Men score 0.15-0.19 points higher on the test. Unreported income is also important. The coefficients for dummies for owning a home, car, or computer, and having access to hot water and the sewage system ("assets" variables) are statistically significant at the 1-5% level. In addition, individuals who pay for commercial medical insurance, send their kids to private schools, or travelled abroad over the previous two years ("consumption" variables) are more financially literate.

[20] The proportion of financially educated people is not very high in the sample as well as the proportion of Macri partisans. There is a possibility that there are not enough observations to capture the correlation between these two variables.

Table 2.2 Determinants of financial literacy: OLS regression

The table presents the relation of financial literacy with individual traits, such as gender, age, education, income, assets in ownership, consumption features, and party identification. The variables are defined in Appendix 2.6.2. The full version of the table is reported in Appendix 2.6.4. Age dummies include dummies for the following age categories - *23-35 years, 36-45 years, 46-60 years, >60 years.* Education dummies include dummies for the following educational degrees - *Primary school, High school, College and Graduate school*. Income dummies include dummies for the following income categories - *$460-$900, $900-$1,580, $1,580-$2,370, >$2,370* in 2018 and *$280-$580, $580-$1,000, $1,000-$1,500, >$1,500* in 2019. Asset dummies include dummies for *Home, Car, Computer, Hot water,* and *Sewage system*. Consumption dummies include dummies for *Commercial insurance, Social or Employer-sponsored insurance, Private school, Public School* and categorical variables for *Nutrition* and *Travel.* The numbers in parentheses are robust standard errors. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Dependent variable:	Financial knowledge			
	2018	2018	2019	2019
	(1)	(2)	(3)	(4)
Male	0.186	0.188	0.149	0.149
	(0.037)***	(0.037)***	(0.037)***	(0.037)***
Macri partisan		0.061		0.042
		(0.05)		(0.062)
Age dummies	Y	Y	Y	Y
Education dummies	Y	Y	Y	Y
Income dummies	Y	Y	Y	Y
Asset dummies	Y	Y	Y	Y
Consumption dummies	Y	Y	Y	Y
Industry fixed effects	Y	Y	Y	Y
R^2	0.197	0.197	0.151	0.151
Number of observations	3840	3840	3725	3725

Table 2.3 presents the analysis of the determinants of attitudes toward specific policies: the opening of the economy, the elimination of subsidies, and the debt payment. I use an OLS regression to estimate the marginal effects of individual traits on support for the economic policies (defined as binary variables). I report the results of the logit regressions in Appendix 2.6.6. I find no major discrepancies between the estimates of the two estimation procedures.

In the 2018 estimates (column (1)), each correctly answered question in the test adds to the approval of the open economy and the elimination of subsidies by 3.9 percentage points and to the debt payment by 3.7 percentage points. In 2019 (column (3)), more financially literate people (measured by each point scored) are more supportive of the opening of the economy by 2.5 percentage points, the elimination of subsidies by 3.4 percentage points, and the debt payment by 4.1 percentage points. The difference in the coefficients for *Financial knowledge* in the 2018 and the 2019 samples is not statistically significant. The magnitude of the coefficients implies that the difference in the level of support for the open economy between respondents with the minimum and the maximum score on the test constitutes 15.6 percentage points in 2018 and 10 percentage points in 2019, for the elimination of subsidies 15.6 percentage points and 13.6 percentage points, respectively, and for the debt payment 14.8 percentage points and 16.4 percentage points, respectively. If all respondents were fully financially educated, it would increase the average support for the elimination of the trade barriers from 29.7% to 40.5% in 2018 and from 27.3% to 34% in 2019, for the elimination of subsidies from 34.7% to 45.5% in 2018 and from 33% to 42.2% in 2019, for the debt payment from 38.3% to 48.6% in 2018 and from 34% to 45.1%in 2019.

When I add a dummy for identification with the incumbent's party, the coefficient for *Financial knowledge* drops slightly but remains statistically significant at the 1% level (columns

(2) and (4)). I also run the same regressions on the separate subsamples of Macri partisans (N=549 in 2018 and N=326 in 2019) and non-partisans (N=3,291 and N=3,399, respectively).[21] The coefficient of *Financial knowledge* continues to be statistically significant at the 1-5% for all policies.[22]

Partisanship predictably increases support for the incumbents' policies by approximately a third. In addition to party identification, I control for gender and find that males are more supportive of the open economy. I use dummies for categories of age, education, and income to account for possible non-linear effects of different categories. The approval rate for the *Open economy* and the *Elimination of subsidies* rises monotonically with age. Because self-reported income may not be very reliable in this particular context, I add batteries of variables that take into account assets in ownership and consumption features. These variables have greater explanatory power than income categories. Notably, educational categories are insignificant in the presence of *Financial knowledge.* This finding may be due to collinearity, but it does not mean that education is not important. Its effect may be captured by other variables, such as *Financial knowledge*, *Income*, assets, or spending.

I repeat the analysis on the subsamples of the relatively affluent individuals (income greater than the minimum wage) and the poorest individuals in the sample (income lower than the minimum wage), respondents with higher education (college and more) and lower education (up to high school degree).[23] The effect of *Financial knowledge* always remains significant.

[21] Not reported.
[22] The only exception is the subsample of Macri partisans with *Debt payment* as a dependant variable in 2019, in which *Financial knowledge* becomes insignificant, likely due to an insufficient number of observations.
[23] Not reported.

Table 2.3 Determinants of the pro-market policies approval: OLS regression (Panel A)

The table presents the relation of financial education and the attitude towards the elimination of the trade barriers (Panel A), the elimination of subsidies (Panel B), and the debt payment (Panel C). The variables are defined in Appendix 2.6.2. The full version of the table is reported in Appendix 2.6.5. Age dummies include dummies for the following age categories - *23-35 years, 36-45 years, 46-60 years, >60 years.* Education dummies include dummies for the following educational degrees - *Primary school, High school, College and Graduate school*. Income dummies include dummies for the following income categories - *$460-$900, $900-$1,580, $1,580-$2,370, >$2,370* in 2018 and *$280-$580, $580-$1,000, $1,000-$1,500, >$1,500* in 2019. Asset dummies include dummies for *Home, Car, Computer, Hot water,* and *Sewage system*. Consumption dummies include dummies for *Commercial insurance, Social or Employer-sponsored insurance, Private school, Public School* and categorical variables for *Nutrition* and *Travel.* The numbers in parentheses are robust standard errors. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Panel A				
Dependent variable:	Approve open economy			
	2018	2018	2019	2019
	(1)	(2)	(3)	(4)
Financial education	0.039	0.037	0.025	0.024
	(0.007)***	(0.007)***	(0.007)***	(0.007)***
Male	0.020	0.033	0.043	0.047
	(0.015)	(0.015)**	(0.015)***	(0.015)***
Macri partisan		0.310		0.297
		(0.02)***		(0.025)***
Age dummies	Y	Y	Y	Y
Education dummies	Y	Y	Y	Y
Income dummies	Y	Y	Y	Y
Asset dummies	Y	Y	Y	Y
Consumption dummies	Y	Y	Y	Y
Industry fixed effects	Y	Y	Y	Y
R^2	0.110	0.162	0.086	0.120
Number of observations	3840	3840	3725	3725

Table 2.3 Determinants of the pro-market policies approval: OLS regression (Panel B and C)

Panel B				
Dependent variable:	Approve elimination of subsidies			
	(1)	(2)	(3)	(4)
Finance education	0.039	0.037	0.034	0.033
	(0.007)***	(0.007)***	(0.007)***	(0.007)***
Male	-0.002	0.012	0.003	0.007
	(0.016)	(0.016)	(0.016)	(0.016)
Macri partisan		0.331		0.291
		(0.021)***		(0.026)***
Age dummies	Y	Y	Y	Y
Education dummies	Y	Y	Y	Y
Income dummies	Y	Y	Y	Y
Asset dummies	Y	Y	Y	Y
Consumption dummies	Y	Y	Y	Y
Industry fixed effects	Y	Y	Y	Y
R^2	0.100	0.155	0.083	0.112
Number of observations	3840	3840	3725	3725
Panel C				
Dependent variable:	Approve debt payment			
	(1)	(2)	(3)	(4)
Finance education	0.037	0.035	0.041	0.040
	(0.007)***	(0.007)***	(0.007)***	(0.007)***
Male	0.020	0.032	0.024	0.028
	(0.017)	(0.016)*	(0.016)	(0.016)*
Macri partisan		0.301		0.260
		(0.022)***		(0.027)***
Age dummies	Y	Y	Y	Y
Education dummies	Y	Y	Y	Y
Income dummies	Y	Y	Y	Y
Asset dummies	Y	Y	Y	Y
Consumption dummies	Y	Y	Y	Y
Industry fixed effects	Y	Y	Y	Y
R^2	0.064	0.107	0.081	0.104
Number of observations	3840	3840	3725	3725

In addition to OLS regressions, I conduct a propensity score matching. I match individuals in the 2018 and the 2019 samples by key demographic characteristics – income, age, education, and gender – and estimate the effect of the "treatment" – financial knowledge. I drop observations in the middle of the distribution – those who answered one question correctly - and compare highly educated with low educated individuals. This yields 1,334 observations in the control group and 1,409 observations in the treatment group in 2018. In 2019, the sample is split into 1,464 treated and 1,127 untreated observations. I use 1:1 nearest-neighbor matching - each individual in the control group is compared with a similar individual in the treatment group by propensity score.

Table 2.4 displays the estimates of the propensity score matching regressions. I observe statistically significant difference in support for market-oriented economic policies between individuals with higher and lower level of financial knowledge. More knowledgeable respondents tend to be more supportive for all three policies with t-statistics ranging from 2.17 and 3.91. Specifically, their approval rate of the elimination of the trade barriers is greater by 15.7 percentage points in 2018 and by 12.3 percentage points in 2019, of the subsidy cut by 14.7 and 11.1 percentage points, and of the debt payment by 22.6 and 17.5 percentage points, respectively.

In Appendix 2.6.7 I report another specification of the propensity score regression in which I add a dummy for Macri partisans to the list of matching variables. The support rate among highly financially educated respondents continues to be higher than among those with a minimum score on the test (with t-statistics ranging from 1.88 to 3.3).

Table 2.4 The effect of financial knowledge on the pro-market policies approval: propensity score matching regression

The table presents the relation between financial knowledge and the attitude towards the elimination of the trade barriers, the elimination of subsidies, and the debt payment for the 2018 and 2019 samples. The variables are defined in Appendix 2.6.2. Observations with score "1" in the financial literacy test are dropped. The treated group includes respondents who scored at least 2 on the test (1,409 observations in 2018 and 1,464 in 2019). The control group includes respondents who score 0 on the test (1,334 observations in 2018 and 1,127 in 2019). The matched sample is constructed on the 1:1 basis.

	2018				2019			
	Unmatched sample				Unmatched sample			
	Treated	Controls	Dif.	t-stat	Treated	Controls	Dif.	t-stat
Open economy	0.383	0.217	0.167	9.65	0.320	0.222	0.098	5.55
Elimination of subsidies	0.432	0.259	0.174	9.7	0.379	0.252	0.127	6.91
Debt payment	0.471	0.289	0.181	9.93	0.417	0.243	0.174	9.42
	Matched sample				Matched sample			
Open economy	0.383	0.226	0.157	2.92	0.320	0.197	0.123	2.45
Elimination of subsidies	0.432	0.285	0.147	2.6	0.379	0.268	0.111	2.17
Debt payment	0.471	0.245	0.226	3.91	0.417	0.242	0.175	3.48
	Matching variables				Matching variables			
	Mean				Mean			
	Treated	Control	%Bias	t-test	Treated	Control	%Bias	t-test
Male	0.572	0.569	0.6	0.15	0.510	0.510	0	0
Age	2.882	2.890	-0.6	-0.16	3.123	3.128	-0.4	-0.11
Education	3.434	3.423	1.4	0.39	3.391	3.391	0	0
Income	2.347	2.363	-1.4	-0.36	2.274	2.274	0	0
Number of observations	2,743				2,591			

As a robustness check, I use the results of the economic literacy quiz instead of the financial literacy test (available only for 2019). Table 2.5 presents the determinants of economic literacy. Predictably, they are similar to that of financial education. The test scores in the economic quiz (ranges from 0 to 4) rise with education. College graduates do better by 0.48 points than do individuals with no education. The middle-income respondents scored higher by 0.11 points when compared to individuals who earn less than the minimum wage. The coefficients for variables that capture unreported income are statistically significant at the 1-5% level. Car owners, computer owners, individuals with access to hot water and the sewage system, those with any kind of medical insurance, and those who travelled abroad recently receive substantially higher test scores. In contrast to *Financial knowledge*, there is no difference between males and females in the test results. Importantly, the coefficient for being a *Macri partisan* is not statistically significant.

Table 2.5 Determinants of economic literacy: OLS regression

The table presents the relation of economic literacy with individual traits, such as gender, age, education, income, assets in ownership, consumption features, and party identification. The variables are defined in Appendix 2.6.2. Age dummies include dummies for the following age categories - *23-35 years, 36-45 years, 46-60 years, >60 years.* Education dummies include dummies for the following educational degrees - *Primary school, High school, College and Graduate school*. Income dummies include dummies for the following income categories - *$460-$900, $900-$1,580, $1,580-$2,370, >$2,370* in 2018 and *$280-$580, $580-$1,000, $1,000-$1,500, >$1,500* in 2019. Asset dummies include dummies for *Home, Car, Computer, Hot water*, and *Sewage system*. Consumption dummies include dummies for *Commercial insurance, Social or Employer-sponsored insurance, Private school, Public School* and categorical variables for *Nutrition* and *Travel.* The numbers in parentheses are robust standard errors. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Dependent variable:	Economic knowledge	
	2019	2019
	(1)	(2)
Male	0.045	0.044
	(0.039)	(0.039)
Macri partisan		-0.023
		(0.065)
Age dummies	Y	Y
Education dummies	Y	Y
Income dummies	Y	Y
Asset dummies	Y	Y
Consumption dummies	Y	Y
Industry fixed effects	Y	Y
R^2	0.116	0.116
Number of observations	3725	3725

In Table 2.6, I present the determinants of the attitudes towards the pro-market economic policies with *Economic knowledge* as an explanatory variable. Each correctly answered question on the quiz adds 1.8 percentage points to the support for the open economy, 1.6 percentage points to the elimination of subsidies, and 4.2 percentage points to the debt payment. When I add a dummy for *Macri partisan*, the magnitude of the coefficient for *Economic knowledge* does not change. If the coefficients of *Economic knowledge* and *Financial knowledge* are multiplied by their respective one standard deviation, their magnitude appears to be very similar.

Table 2.6 The effect of economic knowledge: OLS regression (Panel A)

The table presents the relation between economic education and the attitude towards the elimination of the trade barriers (Panel A), the elimination of subsidies (Panel B), and the debt payment (Panel C). The variables are defined in Appendix 2.6.2. Age dummies include dummies for the following age categories - *23-35 years, 36-45 years, 46-60 years, >60 years.* Education dummies include dummies for the following educational degrees - *Primary school, High school, College and Graduate school*. Income dummies include dummies for the following income categories - *$460-$900, $900-$1,580, $1,580-$2,370, >$2,370* in 2018 and *$280-$580, $580-$1,000, $1,000-$1,500, >$1,500* in 2019. Asset dummies include dummies for *Home, Car, Computer, Hot water,* and *Sewage system*. Consumption dummies include dummies for *Commercial insurance, Social or Employer-sponsored insurance, Private school, Public School* and categorical variables for *Nutrition* and *Travel.* The numbers in parentheses are robust standard errors. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Panel A		
Dependent variable:	Approve open economy	
	2019	2019
	(1)	(2)
Economic knowledge	0.018	0.018
	(0.006)***	(0.006)***
Male	0.046	0.050
	(0.015)***	(0.015)***
Macri partisan		0.298
		(0.025)***
Age dummies	Y	Y
Education dummies	Y	Y
Income dummies	Y	Y
Asset dummies	Y	Y
Consumption dummies	Y	Y
Industry fixed effects	Y	Y
R^2	0.085	0.119
Number of observations	3725	3725

Table 2.6 The effect of economic knowledge: OLS regression (Panel B and C)

Panel B		
Dependent variable:	Approve elimination of subsidies	
	(1)	(2)
Economic education	0.016	0.017
	(0.007)**	(0.007)**
Male	0.007	0.011
	(0.016)	(0.016)
Macri partisan		0.293
		(0.027)***
Age dummies	Y	Y
Education dummies	Y	Y
Income dummies	Y	Y
Asset dummies	Y	Y
Consumption dummies	Y	Y
Industry fixed effects	Y	Y
R^2	0.079	0.109
Number of observations	3725	3725
Panel C		
Dependent variable:	Approve debt payment	
	(1)	(2)
Economic education	0.042	0.043
	(0.007)***	(0.007)***
Male	0.028	0.032
	(0.016)*	(0.016)**
Macri partisan		0.262
		(0.027)***
Age dummies	Y	Y
Education dummies	Y	Y
Income dummies	Y	Y
Asset dummies	Y	Y
Consumption dummies	Y	Y
Industry fixed effects	Y	Y
R^2	0.083	0.106
Number of observations	3725	3725

2.5 Conclusion

The role of information in individual's preferences is a fundamental question about democracy. However, it is challenging to estimate the effect of it because it is often confounded with political preferences. People may choose what and from whom to learn. Therefore, the amount and nature of knowledge they have can be a function of their political inclinations rather than a cause for their positions on issues. At the same time, we have some evidence that knowledge, however acquired, matters for political choices. People with relevant knowledge hold different opinions than they would hold otherwise.

In this chapter, I find that financially and economically educated people are more likely to support pro-market economic policies, such as the elimination of the trade barriers, the elimination of subsidies, and the repayment of international debt. I use evidence from the surveys of 3,840 and 3,725 individuals in Argentina interviewed in 2018 and 2019. I demonstrate that financial and economic knowledge is not correlated with partisanship. I use the sharp economic decline between the two surveys to examine the possibility that financially educated people are simply policy winners and they support pro-market policies because they stand to gain rather than because they are knowledgeable. I show that the distribution between winners and losers due to the economic situation changed significantly from 2018 to 2019. However, the relationship between financial education and preferences for economic policies remains economically and statistically significant.

My analysis suggests that knowledge need not be directly related to politics and policy-specific facts for it to affect opinions. Knowledge of fundamental concepts in a field of study can also have an effect on a relevant set of policy preferences. At least, financial and economic

education increases approval for pro-market economic policies. These findings do not contradict the view that elite cues and group-based identities are key in opinion formation. However, they do suggest that the effect of knowledge may be substantial.

2.6 Appendix

2.6.1 Sampling

I conducted three surveys in the months of January and February in 2017, 2018, and 2019 in which 2,892, 3,840, and 3,725 individuals participated, respectively (in this chapter I use the last two waves). The surveys were carried out in 30 localities in the city of Buenos Aires, in Greater Buenos Aires, and in the Buenos Aires province. Forty six percent of Argentineans live in this region.[24] I fielded the survey in 14 of 15 districts (comunas) in the city of Buenos Aires.[25] I took a random sample for localities in Greater Buenos Aires and in the Buenos Aires province.[26] These localities were stratified by poverty level to maximize the variability in the explanatory variables. I randomly selected two localities from Greater Buenos Aires and two localities from the province in each quartile of the poverty level with a higher probability to be selected for more densely populated places. As a result, 8 localities were selected out of 24 localities that constitute the Greater Buenos Aires area. Additionally, 8 localities were sampled from 111 provincial municipalities. Including the 14 districts in the city of Buenos Aires, 30 localities were selected in total. Within these localities, people were surveyed during weekdays in public places,

[24] The population of the city of Buenos Aires is 2.9 million people; the population of the Buenos Aires metropolitan area (excluding the city of Buenos Aires) is 9.9 million; the population of the Buenos Aires province (excluding the Buenos Aires metropolitan area) is 6.8 million.
[25] Comuna 1 was omitted because there are many tourist attractions and offices in this district. Thus, many people who are present in the streets during working hours do not live there.
[26] Only localities located within 200 km from the city of Buenos Aires were selected in the Buenos Aires province due to budget constraints.

i.e. the main square or the main street. In each locality, approximately 100-120 respondents participated in the survey. The surveyors first verified that respondents were Argentines older than 18. Respondents then completed the survey on their own. Illiterate participants or those who could not read and/or write themselves were assisted by the enumerators in completing the survey.

A street-based intercept survey is an alternative to a household survey. Several studies show that this method does not produce biased results and may, in fact, provide access to hard-to-reach segments of the population (Miller et al., 1997, Denstadli, 2000, McKenzie and Mistiaen, 2009). One potential problems with this type of survey is that certain types of individuals are rarely found on the streets. For example, upper-class individuals are unlikely to appear in public places. However, the failure to reach top income quintiles is a general problem of all surveys, including household surveys. Guriev and Rachinsky (2006) compare inequality estimates obtained through household surveys and objective income data prepared by the Tax Service. They find that surveys do not provide accurate measures because the wealthiest individuals are not included in the sample. It is also hard to reach car owners with a street intercept survey. However, individuals in modern cities spend a lot of time out of their cars. According to the Association of Car Producers, car owners constitute 40.1% of the population of the city of Buenos Aires and the Buenos Aires province. In my samples, 38.7% of respondents are car owners in 2017, 41% in 2018, and 34.4% in 2019.

Street-based intercept surveys have several advantages compared to household surveys; these benefits outweigh any disadvantages. First, according to a 2006 study by the National University of General Sarmiento, at least 8.7% of the population in Buenos Aires and Greater Buenos Aires live in so-called “villas” (slums). It is problematic to survey households located in

these zones because they lack the maps needed for probability sampling and are generally unsafe. Second, it is easier to find the economically active population on the local main street during working hours than at home. Finally, middle and upper classes in Argentina tend to live either in buildings with 24-hour security or in gated communities. Thus, they are more accessible when out of their homes.

2.6.2 Description of variables used in the analysis

Open_economy_approval is a binary variable that is equal to 1 if a respondent chooses "yes" to the question — "Do you or don't you approve of the elimination of export and import restrictions (the abolishment of export quotes, end of capital control, introduction of zero export tariffs for meat, grains, etc.)?" and 0 if otherwise ("no" or "do not know").

Subsidies_cut_approval is a binary variable that is equal to 1 if a respondent chooses "yes" to the question — "Do you or don't you approve of the reduction of public service subsidies in Argentina (subsidies of electricity, gas, water, public transportation)?"and 0 if otherwise ("no" or "do not know").

Debt_payment_approval is a binary variable that is equal to 1 if a respondent chooses "yes" to the question — "Do you or don't you approve of Argentina's payment of the historic debt to holdout bondholders?" and 0 if otherwise ("no" or "do not know").

Financial knowledge is a variable that ranges from 0 (for respondents who did not give any correct answer to the financial literacy test questions) to 4 (for respondents who answered all questions correctly).

Economic knowledge is a variable that ranges from 0 (for respondents who did not give any correct answer to the economic literacy test questions) to 4 (for respondents who answered all questions correctly).

Male is a dummy variable that is equal to 1 if a respondent is male.

Age <23 years, 23-35 years, 36-45 years, 46-60 years, >60 years are dummies for different categories of age.

No education, Primary school, High school, College and Graduate school degree are dummies for different levels of education.

Income <$460, Income $460-$900, Income $900-$1,580, Income $1,580-$2,370, Income >$2,370 are dummies for different categories of income in 2018. *Income <$280, Income $280-$580, Income $580-$1,000, Income $1,000-$1,500, Income >$1,500* are dummies for different categories of income in 2019.

Home, Car, Computer, Hot water, Sewage system are dummies for home owners, car owners, computer owners and individuals with access to hot water and sewage system, respectively.

Nutrition is a categorical variable that is equal to 2 if a respondent "always has enough food for herself and her family", 1 if she "sometimes does not have enough", and 0 if "often does not have enough".

Social or employer-sponsored insurance and *Commercial medical insurance* are dummies for individuals with access to social or employer-sponsored insurance or commercial medical insurance, respectively.

Private school and *public school* are dummies for individuals who send their kids to private schools and public schools, respectively.

Travel is a categorical variable that is equal to 0 if a respondent did not travel abroad during the last two years, 1 if she travelled to neighboring countries, and 2 if she travelled to Europe, North America, or Asia.

Macri partisan is a dummy variable that is equal to 1 if a respondent chooses the party Let's Change to the question — "Is there any political party you feel closer to than others?".

Table 2.6.3 Summary statistics of variables used in the analysis

The table compares summary statistics of the explanatory and dependent variables between the 2018 sample (column (1)) and the 2019 sample (column (2)). The variables are defined in Appendix 2.6.2. The numbers in parentheses are standard deviations of the variables.

	2018	2019
	(1)	(2)
Male	0.496	0.464
	(0.5)	(0.499)
>23 years	0.147	0.150
	(0.354)	(0.357)
24-35 years	0.278	0.248
	(0.448)	(0.432)
36-45 years	0.180	0.161
	(0.384)	(0.367)
46-60 years	0.192	0.213
	(0.394)	(0.41)
>60 years	0.203	0.228
	(0.403)	(0.42)
No education	0.013	0.020
	(0.111)	(0.14)
Primary school	0.155	0.152
	(0.362)	(0.359)
High school	0.468	0.453
	(0.499)	(0.498)
College	0.329	0.329
	(0.47)	(0.47)
Graduate school	0.035	0.046
	(0.184)	(0.21)
Income < $460/Income <$280	0.445	0.460
	(0.497)	(0.498)
Income $460-$900/Income $280-$580	0.266	0.237
	(0.442)	(0.425)
Income $900-$1,580/Income $580-$1,000	0.186	0.185
	(0.39)	(0.388)
Income $1,580-$2,370/Income $1,000-$1,500	0.068	0.062
	(0.251)	(0.241)
Income >$2,370/Income >$1,500	0.035	0.055
	(0.185)	(0.229)

Table 2.6.3 Summary statistics of variables used in the analysis (continued)

Financial knowledge	1.220	1.289
	(1.161)	(1.131)
Economic knowledge	-	2.233
	-	(1.164)
Government approval	0.288	0.156
	(0.453)	(0.363)
Approve open economy	0.297	0.273
	(0.457)	(0.446)
Approve elimination of subsidies	0.347	0.330
	(0.476)	(0.47)
Approve debt payment	0.383	0.340
	(0.486)	(0.474)
Home	0.596	0.556
	(0.491)	(0.497)
Car	0.410	0.344
	(0.492)	(0.475)
Computer	0.609	0.532
	(0.488)	(0.499)
Nutrition	1.697	1.611
	(0.539)	(0.608)
Social or employer-sponsored insurance	0.528	0.494
	(0.499)	(0.5)
Commercial medical insurance	0.150	0.153
	(0.357)	(0.36)
Private school	0.125	0.124
	(0.331)	(0.329)
Travel	0.295	0.283
	(0.566)	(0.566)
Kirchner partisans	0.166	0.172
	(0.372)	(0.378)
Macri partisans	0.143	0.088
	(0.35)	(0.283)
No partisan	0.506	0.506
	(0.5)	(0.5)
Number of observations	3840	3725

Table 2.6.4 Determinants of financial literacy: OLS regression (full version)

The table presents the relation of financial literacy to individual traits, such as gender, age, education, income, assets in ownership, consumption features, and party identification. The variables are defined in Appendix 2.6.2. *No degree*, *Income <$460/Income <$280*, and *Age <23 years* dummies have been dropped and serve as comparison bases for coefficients of the level of education, income, and other age categories, respectively. The numbers in parentheses are robust standard errors. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Dependent variable:	Financial knowledge			
	2018	2018	2019	2019
	(1)	(2)	(3)	(4)
Male	0.186	0.188	0.149	0.149
	(0.037)***	(0.037)***	(0.037)***	(0.037)***
24-35 years	0.022	0.023	0.106	0.105
	(0.058)	(0.058)	(0.059)*	(0.059)*
36-45 years	-0.115	-0.114	0.037	0.036
	(0.065)*	(0.065)*	(0.066)	(0.066)
46-60 years	-0.230	-0.229	0.092	0.091
	(0.063)***	(0.063)***	(0.062)	(0.062)
>60 years	-0.266	-0.267	-0.041	-0.044
	(0.063)***	(0.063)***	(0.063)	(0.063)
Primary school	0.221	0.220	0.228	0.226
	(0.158)	(0.158)	(0.132)*	(0.132)*
High school	0.322	0.319	0.285	0.282
	(0.155)**	(0.155)**	(0.128)**	(0.128)**
College	0.453	0.450	0.410	0.408
	(0.158)***	(0.158)***	(0.13)***	(0.13)***
Graduate school	0.550	0.548	0.533	0.533
	(0.18)***	(0.18)***	(0.15)***	(0.15)***
$460-$900/$280-$580	0.294	0.292	0.183	0.182
	(0.046)***	(0.046)***	(0.048)***	(0.048)***
$900-$1,580/$580-$1,000	0.323	0.321	0.209	0.207
	(0.053)***	(0.053)***	(0.053)***	(0.053)***
$1,580-$2,370/$1,000-$1,500	0.402	0.397	0.387	0.387
	(0.078)***	(0.078)***	(0.081)***	(0.081)***
>$2,370/>1,500	0.359	0.356	0.212	0.210
	(0.104)***	(0.104)***	(0.085)**	(0.085)**

Table 2.6.4 Determinants of financial literacy: OLS regression (full version, continued)

Home	0.085	0.085	0.036	0.035
	(0.038)**	(0.038)**	(0.038)	(0.038)
Car	0.095	0.094	0.109	0.109
	(0.041)**	(0.041)**	(0.043)**	(0.043)**
Computer	0.244	0.242	0.245	0.245
	(0.045)***	(0.045)***	(0.045)***	(0.045)***
Hot water	0.142	0.142	0.159	0.158
	(0.052)***	(0.052)***	(0.052)***	(0.052)***
Sewage system	0.104	0.103	0.181	0.182
	(0.046)**	(0.046)**	(0.047)***	(0.047)***
Nutrition	-0.006	-0.008	0.040	0.039
	(0.035)	(0.035)	(0.032)	(0.032)
Social or employer-sponsored insurance	0.005	0.005	0.050	0.050
	(0.044)	(0.044)	(0.043)	(0.043)
Commercial insurance	0.187	0.183	0.176	0.176
	(0.063)***	(0.063)***	(0.06)***	(0.06)***
Private school	0.132	0.130	-0.097	-0.098
	(0.056)**	(0.056)**	(0.057)*	(0.057)*
Public school	0.035	0.037	-0.067	-0.067
	(0.044)	(0.044)	(0.045)	(0.045)
Travel	0.249	0.245	0.086	0.084
	(0.033)***	(0.033)***	(0.034)**	(0.034)**
Macri partisan		0.061		0.042
		(0.05)		(0.062)
Industry fixed effects	Yes	Yes	Yes	Yes
R^2	0.197	0.197	0.151	0.151
Number of observations	3840	3840	3725	3725

Table 2.6.5 Determinants of the pro-market policies approval: OLS regressions (full version)

The table presents the relation between financial education and the attitude towards the elimination of trade barriers (Panel A), the elimination of subsidies (Panel B), and the debt payment (Panel C). The variables are defined in Appendix 2.6.2. *No degree*, *Income <$460/<$280*, and *Age <23 years* dummies have been dropped and serve as comparison bases for coefficients for the level of education and income and other age categories. The numbers in parentheses are robust standard errors. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Panel A				
Dependent variable:	Approve open economy			
	2018	2018	2019	2019
	(1)	(2)	(3)	(4)
Financial knowledge	0.039	0.037	0.025	0.024
	(0.007)***	(0.007)***	(0.007)***	(0.007)***
Male	0.020	0.033	0.043	0.047
	(0.015)	(0.015)**	(0.015)***	(0.015)***
24-35 years	0.044	0.051	0.032	0.028
	(0.024)*	(0.023)**	(0.024)	(0.024)
36-45 years	0.088	0.095	0.081	0.073
	(0.027)***	(0.026)***	(0.027)***	(0.026)***
46-60 years	0.151	0.152	0.104	0.098
	(0.026)***	(0.025)***	(0.025)***	(0.025)***
>60 years	0.164	0.159	0.160	0.143
	(0.026)***	(0.025)***	(0.026)***	(0.025)***
Primary school	0.013	0.008	-0.072	-0.084
	(0.066)	(0.064)	(0.054)	(0.053)
High school	0.023	0.011	-0.079	-0.097
	(0.064)	(0.062)	(0.052)	(0.051)*
College	0.039	0.024	-0.073	-0.091
	(0.065)	(0.064)	(0.053)	(0.052)*
Graduate school	0.013	0.004	-0.043	-0.046
	(0.075)	(0.073)	(0.061)	(0.06)
$460-$900/$280-$580	0.013	0.008	0.033	0.025
	(0.019)	(0.018)	(0.02)*	(0.019)
$900-$1,580/$580-$1,000	0.059	0.049	-0.010	-0.022
	(0.022)***	(0.022)**	(0.022)	(0.021)
$1,580-$2,370/$1,000-$1,500	0.041	0.018	-0.012	-0.017
	(0.033)	(0.032)	(0.033)	(0.033)

Table 2.6.5 Determinants of the pro-market policies approval: OLS regression (full version, continued)

>$2,370/>1,500	0.102	0.084	0.091	0.077
	(0.043)**	(0.042)**	(0.035)***	(0.034)**
Home	0.001	-0.001	0.020	0.011
	(0.016)	(0.015)	(0.016)	(0.015)
Car	0.026	0.020	-0.047	-0.049
	(0.017)	(0.016)	(0.018)***	(0.017)***
Computer	0.032	0.024	0.040	0.039
	(0.019)*	(0.018)	(0.019)**	(0.018)**
Hot water	-0.015	-0.016	0.028	0.019
	(0.021)	(0.021)	(0.021)	(0.021)
Sewage system	0.012	0.009	-0.029	-0.022
	(0.019)	(0.019)	(0.019)	(0.019)
Nutrition	0.052	0.041	0.062	0.055
	(0.015)***	(0.014)***	(0.013)***	(0.013)***
Social or employer-sponsored insurance	0.023	0.024	0.029	0.031
	(0.018)	(0.018)	(0.018)	(0.017)*
Commercial insurance	0.068	0.051	0.102	0.101
	(0.026)***	(0.025)**	(0.025)***	(0.024)***
Private school	0.043	0.030	0.036	0.028
	(0.023)*	(0.023)	(0.023)	(0.023)
Public school	-0.044	-0.034	0.007	0.010
	(0.018)**	(0.018)*	(0.018)	(0.018)
Travel	0.074	0.055	0.053	0.043
	(0.014)***	(0.013)***	(0.014)***	(0.014)***
Macri partisan		0.310		0.297
		(0.02)***		(0.025)***
R^2	0.110	0.162	0.086	0.120
	Panel B			
Dependent variable:	Approve elimination of subsidies			
Financial knowledge	0.039	0.037	0.034	0.033
	(0.007)***	(0.007)***	(0.007)***	(0.007)***
Male	-0.002	0.012	0.003	0.007
	(0.016)	(0.016)	(0.016)	(0.016)
24-35 years	0.045	0.051	0.011	0.007
	(0.025)*	(0.024)**	(0.025)	(0.025)

Table 2.6.5 Determinants of the pro-market policies approval: OLS regression (full version, continued)

36-45 years	0.084	0.091	0.021	0.013
	(0.028)***	(0.027)***	(0.028)	(0.028)
46-60 years	0.127	0.128	0.079	0.073
	(0.027)***	(0.027)***	(0.027)***	(0.026)***
>60 years	0.176	0.171	0.142	0.125
	(0.027)***	(0.026)***	(0.027)***	(0.027)***
Primary school	0.047	0.042	0.024	0.011
	(0.069)	(0.067)	(0.057)	(0.056)
High school	0.070	0.058	0.069	0.051
	(0.067)	(0.065)	(0.055)	(0.054)
College	0.077	0.060	0.062	0.045
	(0.069)	(0.066)	(0.056)	(0.056)
Graduate school	0.058	0.050	0.015	0.011
	(0.078)	(0.076)	(0.065)	(0.064)
$460-$900/$280-$580	-0.002	-0.008	0.048	0.040
	(0.02)	(0.019)	(0.021)**	(0.02)**
$900-$1,580/$580-$1,000	0.076	0.065	0.019	0.008
	(0.023)***	(0.023)***	(0.023)	(0.023)
$1,580-$2,370/$1,000-$1,500	0.081	0.057	0.023	0.018
	(0.034)**	(0.033)*	(0.035)	(0.034)
>$2,370/>1,500	0.064	0.045	0.086	0.072
	(0.045)	(0.044)	(0.037)**	(0.036)**
Home	0.010	0.007	0.034	0.027
	(0.017)	(0.016)	(0.017)**	(0.016)
Car	0.051	0.045	-0.038	-0.040
	(0.018)***	(0.017)***	(0.019)**	(0.018)**
Computer	0.024	0.015	0.037	0.036
	(0.02)	(0.019)	(0.02)*	(0.019)*
Hot water	-0.019	-0.020	0.025	0.017
	(0.022)	(0.022)	(0.022)	(0.022)
Sewage system	0.025	0.022	-0.060	-0.054
	(0.02)	(0.019)	(0.02)***	(0.02)***
Nutrition	0.043	0.032	0.070	0.063
	(0.015)***	(0.015)**	(0.014)***	(0.013)***
Social or employer-sponsored insurance	0.001	0.003	-0.001	0.001
	(0.019)	(0.018)	(0.019)	(0.018)

Table 2.6.5 Determinants of the pro-market policies approval: OLS regression (full version, continued)

Commercial insurance	0.048	0.030	0.141	0.141
	(0.027)*	(0.026)	(0.026)***	(0.026)***
Private school	0.038	0.025	0.069	0.061
	(0.024)	(0.024)	(0.025)***	(0.024)**
Public school	-0.044	-0.033	0.009	0.011
	(0.019)**	(0.018)*	(0.019)	(0.019)
Travel	0.071	0.051	0.048	0.038
	(0.014)***	(0.014)***	(0.015)***	(0.014)***
Macri partisan		0.331		0.291
		(0.021)***		(0.026)***
R^2	0.100	0.155	0.083	0.112
	Panel C			
Dependent variable:	Approve debt payment			
Financial knowledge	0.037	0.035	0.041	0.040
	(0.007)***	(0.007)***	(0.007)***	(0.007)***
Male	0.020	0.032	0.024	0.028
	(0.017)	(0.016)*	(0.016)	(0.016)*
24-35 years	0.019	0.025	-0.028	-0.031
	(0.026)	(0.025)	(0.026)	(0.025)
36-45 years	-0.034	-0.027	-0.071	-0.078
	(0.029)	(0.029)	(0.029)**	(0.028)***
46-60 years	-0.055	-0.053	-0.068	-0.074
	(0.029)*	(0.028)*	(0.027)**	(0.027)***
>60 years	0.018	0.014	-0.005	-0.020
	(0.028)	(0.028)	(0.028)	(0.027)
Primary school	-0.024	-0.029	-0.031	-0.041
	(0.071)	(0.07)	(0.058)	(0.057)
High school	0.037	0.026	0.037	0.021
	(0.07)	(0.069)	(0.056)	(0.055)
College	0.041	0.026	0.040	0.024
	(0.071)	(0.07)	(0.057)	(0.056)
Graduate school	-0.003	-0.010	-0.046	-0.049
	(0.082)	(0.08)	(0.066)	(0.065)
$460-$900/$280-$580	0.029	0.024	-0.009	-0.016
	(0.021)	(0.02)	(0.021)	(0.021)
$900-$1,580/$580-$1,000	0.056	0.047	-0.002	-0.012

Table 2.6.5 Determinants of the pro-market policies approval: OLS regression (full version, continued)

$1,580-$2,370/$1,000-$1,500	0.063	0.041	-0.019	-0.024
	(0.036)*	(0.035)	(0.035)	(0.035)
>$2,370/>1,500	0.078	0.061	0.070	0.058
	(0.047)*	(0.046)	(0.037)*	(0.037)
Home	0.030	0.028	0.032	0.025
	(0.017)*	(0.017)*	(0.017)*	(0.016)
Car	0.054	0.048	-0.025	-0.027
	(0.018)***	(0.018)***	(0.019)	(0.019)
Computer	0.034	0.026	0.035	0.034
	(0.021)*	(0.02)	(0.02)*	(0.019)*
Hot water	0.002	0.001	0.000	-0.007
	(0.023)	(0.023)	(0.023)	(0.022)
Sewage system	-0.020	-0.023	0.035	0.040
	(0.021)	(0.02)	(0.021)*	(0.02)**
Nutrition	0.044	0.034	0.068	0.062
	(0.016)***	(0.016)**	(0.014)***	(0.014)***
Social or employer-sponsored insurance	0.026	0.027	0.013	0.015
	(0.02)	(0.019)	(0.019)	(0.019)
Commercial insurance	0.029	0.013	0.112	0.111
	(0.028)	(0.028)	(0.026)***	(0.026)***
Private school	0.034	0.022	0.070	0.063
	(0.025)	(0.025)	(0.025)***	(0.025)***
Public school	-0.024	-0.014	0.011	0.013
	(0.02)	(0.019)	(0.02)	(0.019)
Travel	0.020	0.002	0.032	0.023
	(0.015)	(0.015)	(0.015)**	(0.014)
Macri partisan		0.301		0.260
		(0.022)***		(0.027)***
Industry fixed effects	Yes	Yes	Yes	Yes
R^2	0.064	0.107	0.081	0.104
Number of observations	3840	3840	3725	3725

Table 2.6.6 Determinants of approval of market-oriented policies: logit regression (marginal effects reported)

The table presents the relation between financial education and the attitude towards the elimination of trade barriers (Panel A), the elimination of subsidies (Panel B), and the debt payment (Panel C). The variables are defined in Appendix 2.6.2. *No degree*, *Income <$460,* and *Age <23 years* dummies have been dropped and serve as comparison bases for coefficients for the level of education, income and other age categories. The numbers in parentheses are robust standard errors. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Panel A				
Dependent variable:	Approve open economy			
	2018	2018	2019	2019
	(1)	(2)	(3)	(4)
Financial knowledge	0.038	0.038	0.025	0.025
	(0.007)***	(0.007)***	(0.007)***	(0.007)***
Male	0.024	0.039	0.047	0.053
	(0.016)	(0.017)**	(0.016)***	(0.016)***
24-35 years	0.053	0.067	0.043	0.038
	(0.029)*	(0.03)**	(0.029)	(0.029)
36-45 years	0.108	0.127	0.101	0.094
	(0.034)***	(0.036)***	(0.034)***	(0.034)***
46-60 years	0.179	0.195	0.129	0.123
	(0.034)***	(0.035)***	(0.032)***	(0.032)***
>60 years	0.190	0.200	0.185	0.169
	(0.034)***	(0.035)***	(0.033)***	(0.033)***
Primary school	0.010	0.004	-0.068	-0.077
	(0.075)	(0.076)	(0.045)	(0.043)*
High school	0.022	0.008	-0.081	-0.098
	(0.073)	(0.074)	(0.049)*	(0.048)**
College	0.037	0.020	-0.075	-0.090
	(0.076)	(0.076)	(0.048)	(0.046)*
Graduate school	0.010	0.000	-0.046	-0.046
	(0.084)	(0.084)	(0.052)	(0.051)
$460-$900/$280-$580	0.018	0.013	0.034	0.026
	(0.021)	(0.021)	(0.021)	(0.021)
$900-$1,580/$580-$1,000	0.059	0.050	-0.009	-0.021
	(0.025)**	(0.025)**	(0.022)	(0.022)
$1,580-$2,370/$1,000-$1,500	0.032	0.011	-0.014	-0.019
	(0.034)	(0.034)	(0.032)	(0.032)
>$2,370/>1,500	0.086	0.071	0.079	0.070
	(0.049)*	(0.05)	(0.038)**	(0.038)*

Table 2.6.6 Determinants of approval of market-oriented policies: logit regression (marginal effects reported, continued)

Home	0.000	-0.002	0.019	0.011
	(0.017)	(0.017)	(0.016)	(0.017)
Car	0.027	0.023	-0.050	-0.053
	(0.018)	(0.018)	(0.018)***	(0.018)***
Computer	0.034	0.027	0.043	0.043
	(0.02)*	(0.021)	(0.019)**	(0.019)**
Hot water	-0.014	-0.016	0.033	0.024
	(0.024)	(0.025)	(0.022)	(0.022)
Sewage system	0.011	0.007	-0.032	-0.025
	(0.021)	(0.021)	(0.021)	(0.021)
Nutrition	0.071	0.058	0.075	0.067
	(0.018)***	(0.018)***	(0.015)***	(0.015)***
Social or employer-sponsored insurance	0.035	0.037	0.037	0.040
	(0.02)*	(0.02)*	(0.019)*	(0.019)**
Commercial insurance	0.075	0.061	0.110	0.113
	(0.03)**	(0.03)**	(0.029)***	(0.029)***
Private school	0.039	0.028	0.037	0.029
	(0.025)	(0.025)	(0.025)	(0.025)
Public school	-0.052	-0.041	0.007	0.010
	(0.019)***	(0.02)**	(0.02)	(0.02)
Travel	0.067	0.053	0.048	0.040
	(0.014)***	(0.014)***	(0.013)***	(0.014)***
Macri partisan		0.325		0.307
		(0.025)***		(0.031)***
Pseudo-R^2	0.092	0.133	0.075	0.102
Panel B				
Dependent variable:	Approve elimination of subsidies			
Financial knowledge	0.041	0.041	0.035	0.035
	(0.008)***	(0.008)***	(0.007)***	(0.008)***
Male	-0.001	0.014	0.003	0.008
	(0.017)	(0.018)	(0.017)	(0.017)
24-35 years	0.050	0.064	0.013	0.007
	(0.029)*	(0.031)**	(0.028)	(0.029)
36-45 years	0.096	0.115	0.021	0.013
	(0.034)***	(0.035)***	(0.032)	(0.032)

Table 2.6.6 Determinants of approval of market-oriented policies: logit regression (marginal effects reported, continued)

46-60 years	0.145	0.159	0.087	0.081
	(0.033)***	(0.034)***	(0.031)***	(0.031)***
>60 years	0.196	0.207	0.152	0.138
	(0.032)***	(0.034)***	(0.032)***	(0.032)***
Primary school	0.060	0.055	0.019	0.006
	(0.086)	(0.088)	(0.064)	(0.063)
High school	0.084	0.072	0.069	0.051
	(0.08)	(0.083)	(0.061)	(0.06)
College	0.091	0.075	0.061	0.044
	(0.084)	(0.086)	(0.063)	(0.063)
Graduate school	0.074	0.068	0.013	0.009
	(0.098)	(0.101)	(0.071)	(0.071)
$460-$900/$280-$580	0.000	-0.007	0.052	0.044
	(0.022)	(0.022)	(0.023)**	(0.023)*
$900-$1,580/$580-$1,000	0.079	0.071	0.021	0.009
	(0.026)***	(0.027)***	(0.025)	(0.025)
$1,580-$2,370/$1,000-$1,500	0.080	0.061	0.022	0.017
	(0.038)**	(0.039)	(0.037)	(0.037)
>$2,370/>1,500	0.058	0.041	0.085	0.074
	(0.05)	(0.051)	(0.041)**	(0.041)*
Home	0.009	0.008	0.036	0.029
	(0.018)	(0.019)	(0.017)**	(0.018)
Car	0.054	0.051	-0.040	-0.044
	(0.019)***	(0.02)***	(0.019)**	(0.02)**
Computer	0.026	0.018	0.039	0.039
	(0.021)	(0.022)	(0.021)*	(0.021)*
Hot water	-0.020	-0.023	0.029	0.020
	(0.025)	(0.026)	(0.024)	(0.024)
Sewage system	0.027	0.024	-0.068	-0.062
	(0.022)	(0.022)	(0.022)***	(0.023)***
Nutrition	0.054	0.041	0.082	0.075
	(0.018)***	(0.018)**	(0.016)***	(0.016)***
Social or employer-sponsored insurance	0.006	0.006	0.002	0.004
	(0.021)	(0.022)	(0.02)	(0.021)

Table 2.6.6 Determinants of approval of market-oriented policies: logit regression (marginal effects reported, continued)

Commercial insurance	0.050	0.035	0.144	0.150
	(0.03)*	(0.031)	(0.03)***	(0.03)***
Private school	0.038	0.025	0.073	0.067
	(0.027)	(0.027)	(0.027)***	(0.028)**
Public school	-0.050	-0.039	0.009	0.012
	(0.02)**	(0.021)*	(0.021)	(0.022)
Travel	0.069	0.055	0.047	0.039
	(0.015)***	(0.016)***	(0.015)***	(0.015)***
Macri partisan		0.356		0.308
		(0.024)***		(0.031)***
Pseudo-R^2	0.079	0.121	0.067	0.089
	Panel C			
Dependent variable:	Approve debt payment			
Financial knowledge	0.037	0.037	0.041	0.042
	(0.008)***	(0.008)***	(0.007)***	(0.008)***
Male	0.020	0.035	0.026	0.031
	(0.017)	(0.018)**	(0.017)	(0.017)*
24-35 years	0.018	0.026	-0.032	-0.036
	(0.027)	(0.028)	(0.026)	(0.026)
36-45 years	-0.039	-0.032	-0.080	-0.087
	(0.03)	(0.031)	(0.028)***	(0.028)***
46-60 years	-0.060	-0.061	-0.074	-0.081
	(0.029)**	(0.03)**	(0.026)***	(0.026)***
>60 years	0.017	0.015	-0.007	-0.023
	(0.03)	(0.031)	(0.029)	(0.029)
Primary school	-0.024	-0.031	-0.045	-0.056
	(0.079)	(0.08)	(0.061)	(0.06)
High school	0.046	0.034	0.037	0.021
	(0.079)	(0.081)	(0.062)	(0.062)
College	0.049	0.033	0.038	0.023
	(0.082)	(0.083)	(0.064)	(0.063)
Graduate school	0.006	-0.005	-0.050	-0.053
	(0.091)	(0.091)	(0.066)	(0.066)
$460-$900/$280-$580	0.033	0.029	-0.008	-0.017
	(0.022)	(0.023)	(0.022)	(0.022)

Table 2.6.6 Determinants of approval of market-oriented policies: logit regression (marginal effects reported, continued)

$900-$1,580/$580-$1,000	0.060	0.052	-0.003	-0.013
	(0.026)**	(0.026)*	(0.024)	(0.024)
$1,580-$2,370/$1,000-$1,500	0.066	0.045	-0.021	-0.026
	(0.038)*	(0.039)	(0.035)	(0.035)
>$2,370/>1,500	0.081	0.066	0.069	0.060
	(0.051)	(0.052)	(0.041)*	(0.041)
Home	0.032	0.032	0.034	0.028
	(0.018)*	(0.018)*	(0.018)*	(0.018)
Car	0.055	0.051	-0.029	-0.031
	(0.019)***	(0.02)***	(0.019)	(0.02)
Computer	0.036	0.029	0.036	0.035
	(0.022)*	(0.022)	(0.021)*	(0.021)*
Hot water	0.002	0.000	0.002	-0.007
	(0.025)	(0.026)	(0.025)	(0.025)
Sewage system	-0.022	-0.025	0.036	0.044
	(0.022)	(0.023)	(0.022)*	(0.022)**
Nutrition	0.052	0.041	0.082	0.076
	(0.018)***	(0.018)**	(0.016)***	(0.016)***
Social or employer-sponsored insurance	0.030	0.032	0.018	0.020
	(0.021)	(0.021)	(0.02)	(0.02)
Commercial insurance	0.031	0.015	0.117	0.119
	(0.03)	(0.031)	(0.03)***	(0.03)***
Private school	0.035	0.024	0.075	0.069
	(0.027)	(0.027)	(0.027)***	(0.028)**
Public school	-0.027	-0.016	0.013	0.016
	(0.021)	(0.021)	(0.021)	(0.022)
Travel	0.018	0.001	0.029	0.021
	(0.015)	(0.016)	(0.015)**	(0.015)
Macri partisan		0.315		0.276
		(0.024)***		(0.031)***
Industry fixed effects	Yes	Yes	Yes	Yes
Pseudo-R^2	0.049	0.082	0.066	0.084
Number of observations	3840	3840	3725	3725

Table 2.6.7 The effect of financial knowledge on pro-market policies approval: propensity score matching regression

The table presents the relation between financial knowledge and the attitude towards the elimination of trade barriers, the elimination of subsidies, and the debt payment for the 2018 and 2019 samples. The variables are defined in Appendix 2.6.2. Observations with score "1" in the financial literacy test are dropped. The treated group includes respondents who scored at least 2 on the test (1,409 observations in 2018 and 1,464 in 2019). The control group includes respondents who scored 0 on the test (1,334 observations in 2018 and 1,127 in 2019). The matched sample is constructed on the 1:1 basis.

	2018				2019			
	Unmatched sample				Unmatched sample			
	Treated	Controls	Dif.	t-stat	Treated	Controls	Dif.	t-stat
Open economy	0.383	0.217	0.167	9.65	0.320	0.222	0.098	5.55
Elimination of subsidies	0.432	0.259	0.174	9.7	0.379	0.252	0.127	6.91
Debt payment	0.471	0.289	0.181	9.93	0.417	0.243	0.174	9.42
	Matched sample				Matched sample			
Open economy	0.383	0.247	0.136	2.69	0.320	0.173	0.146	3.13
Elimination of subsidies	0.432	0.293	0.139	2.57	0.379	0.273	0.107	2.12
Debt payment	0.471	0.367	0.104	1.88	0.417	0.253	0.164	3.3
	Matching variables				Matching variables			
	Mean				Mean			
	Treated	Control	%Bias	t-test	Treated	Control	%Bias	t-test
Male	0.572	0.599	-5.4	-1.45	0.510	0.510	-0.1	-0.04
Age	2.882	2.891	-0.6	-0.17	3.123	3.077	3.3	0.91
Education	3.434	3.427	0.8	0.24	3.391	3.400	-1	0.28
Income	2.347	2.363	-1.5	-0.37	2.274	2.278	-0.4	-0.09
Macri partisan	0	0.15543	8.5	2.11	0.103	0.089	5.2	1.32
Number of observations	2,743				2,591			

CHAPTER 3

The effect of relevant information on policy preferences:

Experimental evidence

In Chapter 2, I present the observational evidence of the effect of knowledge on policy preferences. I demonstrate that in contemporary Argentina my measure of knowledge is uncorrelated with another important driver for policy preferences – party identification. I conduct analysis in two different contexts – economic boom and recession - to address the issue of possible confoundedness with economic policy preferences and economic interests. In this chapter, I aim to establish a causal link between providing people with relevant information and a shift in their preferences for pro-market economic policies. In the 2018 and 2019 surveys, I conduct two survey experiments in which I "educate" randomly selected respondents about the impact of anti-market policies on the national economy and individual well-being. In both surveys two identical treatments were included - "an economic lesson" or "a case study" of Venezuela. My hypothesis is that this information would make respondents more supportive for pro-market economic policies recently implemented by the Argentine government.

In the 2018 survey, respondents in the treatment groups were, indeed, more likely to support two out of three economic policies in question - the elimination of trade restrictions and the repayment of the debt. Respondents who received "an economic lesson" had a higher probability of approving the open economy by 8.3 points and the debt payment by 9.6 points.

Those who read about Venezuela's experience had a higher probability of favoring the open economy by 10.2 points and the debt payment by 8.8 points. In the survey carried out a year later, results do not reach the conventional level of significance, even though there were 45% more observations in both treatment and control groups, though the signs of the coefficients of the treatment dummies are consistent with the hypothesis. Respondents who were assigned to "an economic lesson" are more supportive of the elimination of trade barriers by 5 points (marginally significant at the 19% level), the elimination of subsidies by 10 points (significant at the 5% level), and the debt payment by 5.8 points (marginally significant at the 14% level). Those assigned to the "Venezuela" treatment demonstrate more support for the debt payment by 5.3 points (marginally significant at the 17.8% level).

Two conclusions can be drawn from these findings. First, they do suggest that there is a causal link between relevant information and policy preferences. Respondents assigned to one of the treatments that discuss consequences of the anti-market policies are more likely to support market-oriented economic policies. Second, they demonstrate how fragile survey experimental results can be with respect to a special form of external validity - temporal validity. An internally valid causal estimate obtained at one point in time may not be externally valid for the same population at another point in time due to aggregate shocks that an entire population might experience.

3.1 Hypothesis and empirical strategy

We have evidence that people can learn new information, and this knowledge may change their policy preferences (Gerber and Green, 1999, Bullock, 2009). With respect to economic knowledge, those who are taught about the workings of the economy are expected to look more favorably upon economic policies aimed to boost economic growth.

We also have evidence of motivated reasoning when people accept information that is in line with their prior beliefs and ignore information that is inconsistent with their predispositions (Zaller, 1992, Leeper and Slothuus, 2014, Lebo and Cassino, 2007). That is why it is important to give a treatment that does not prime other predispositions, such as party attachments. In my survey, randomly selected respondents were given either "an economic lesson" or "a case study."

In the "economic lesson" treatment, I explain how recent economic policies of the country led to negative consequences for the economy. I deliberately do not mention politicians associated with policy initiation and refer instead to anonymous "economists":

According to economists, government subsidies and price controls for utilities lead to overconsumption of electricity, gas, and water on the part of consumers and little investment in infrastructure on the part of private companies. According to the Ministry of Energy, in 2014 every Argentine was without electricity 33 hours per year (compared to 6 hours in 2003). Currency controls and export and import restrictions made Argentine farmers move to Uruguay. In 2010-2015 up to 50% of land in Uruguay was cultivated by Argentines. At the same time, in 2013 in Argentina the land area dedicated to, for example, wheat was twice as low and wheat export was 4 times as low as it was in 2004.

The "case study" reminds respondents of a recent experience of neighboring Venezuela. During the 2000s and 2010s, both Argentina and Venezuela were proud members of the so called "pink tide": Latin American countries with leftist governments who stay away from the neo-liberal economic model. The leaders of the two countries met frequently and built "international resistance" to "get back on the road to utopia", as Hugo Chavez put it. Although Argentina never went as far in state intervention in the economy as did Venezuela, economic policies in the two countries resembled each other – nationalizations, price and currency controls, trade restrictions, etc. In 2015, the two countries went their separate ways. Since then, Venezuela has been experiencing a major humanitarian catastrophe that caused 13% of the population to leave the country (including around 170,000 who immigrated to Argentina). As recently as in 2008, Venezuela and Argentina were two middle-income countries with similar GDP per capita. Now Argentina is 70% wealthier. The piece presented in the survey is as follows:

Economic policies of the Hugo Chavez and Nicolas Maduro governments created socioeconomic crisis in Venezuela. Price controls, nationalization of farms, supermarkets, and manufacturing companies led to shortages of food, basic consumer products, and medicines. Currency controls, trade restrictions and one of the highest taxes in the world suppressed any business activity. As a result, last year inflation reached 1.37 million percent. In 2018 the economy contracted by 18%. Venezuelans reported losing on average 11 kilograms in body weight just during 2017. Almost 90% now live in poverty.

Previous research shows that some groups of the population may be particularly susceptible to react to a survey treatment. I estimate the treatment effect for the subgroups of non-partisans, less educated, less financially educated, poorer, and older respondents. Non-partisans are more responsive to survey treatments because they have fewer considerations in

their head that prevent them from accepting new information (Bartels, 2002, Huber, Hill, and Lenz, 2012). The treatment is likely to have no effect on Macri partisans because their prior beliefs are aligned with those suggested by the treatment. Also, it is unlikely to have an effect on Macri opponents because their preconceptions make them reluctant to receive information that is at odds with their partisan loyalties. Another mechanism behind the heterogeneity of the treatment effect may originate from differences in the cognitive capacities of certain subgroups of the population. Krosnick (1991, 1992), Krosnick and Alwin (1987) argue that "complex, abstract, and extensive cognitive activities are difficult" for people who lack "cognitive skills" or "cognitive sophistication." These people are less likely to elaborate and more prone for primacy, which means that they focus their attention on items presented recently. Specifically, respondents with low educational attainment are more susceptible to priming treatments (Schuman and Presser, 1996, Narayan and Krosnick, 1996). Knauper (1999) finds that age has a similar effect, possibly because of the decreasing working memory capacity of older people. Mathiowetz et al. (2002) note limited cognitive capacities of low-income populations.

When individuals are supplied with information like that presented in the treatment vignettes and demonstrate more support for policies, their reaction can be explained by either priming or learning. Individuals fill their head with many different and often inconsistent considerations (Zaller, 1992). When a surveyor approaches with a question, they draw on considerations from the top of their head. The treatments make certain considerations more salient and respondents are primed to show more support for pro-market policies. One would expect this effect to be short-term. Learning implies that information has been internalized and has become a new position on an issue. It is challenging to distinguish the two mechanisms behind the treatment effect empirically. For example, we could expect that individuals with less

consistent political preferences (usually non-partisans) are more susceptible to priming because their heads are filled with arguments from both political camps. However, they may be more susceptible to learning because they do not have an ideology that prevents them from learning new information. Likewise, compared with knowledgeable individuals, respondents with less knowledge may learn more from the information they encounter because they have more room for advancement. However, they can also be more easily primed because they do not have enough knowledge to evaluate this information critically. Scholars use panel surveys to distinguish priming from learning (Lenz, 2009, Tesler, 2014). In these studies, treatments include an influx of messages about certain issues during campaigns rather than a short passage in a cross-sectional survey. They distinguish priming and learning by documenting the preservation of the treatment effect between panels. This method might be not suitable for survey experiments. Respondents would be exposed to many other considerations similar to those in a survey treatment between panels, and learning would be indistinguishable from priming because of high knowledge deterioration. The design of this study also does not permit a distinction between learning and priming.

3.2 Covariate balance

To make sure that the results presented later are due to the treatment effect and not due to particular sample realizations, I present the covariate balance among key variables across two treatment groups and the control group and across the two years. Table 3.1 displays average values and standard deviations of the variables. The treatment and control groups are balanced on demographic variables, such as gender, age, education, and income. In 2019, respondents

randomly assigned to both treatment groups turned out to be better financially educated, and the difference is statistically significant. The *Government approval* and the support rates of specific policies are defined as categorical variables. They are equal to 1 if a respondent chose "yes" in response to the question about approval of the government or a policy, 0 if she chose "Don't know", and -1 if she chose "No". A simple comparison reveals that support for the *Open economy* and the *Debt payment* is higher among individuals who received both treatments in 2018. In 2019, the direction of change is consistent with the hypothesis regarding the treatment effect. However, the difference in support between the treatment and control groups is statistically insignificant.

In both years, the presented survey experiments were parts of a larger project, and therefore the number of observations in the treatment and control groups do not add up to the total number of observations. In the subsequent analyses, the treatment groups are always compared with the control group rather than with the rest of the sample. Other treatments that are not discussed in this study are included in the regressions but are not reported.

Table 3.1 Covariate balance between treatment and control groups in 2018 and 2019

The table compares summary statistics of the explanatory and dependent variables in the two treatment groups and the control group in the 2018 and the 2019 samples. *Age*, *Education*, and *Income* are categorical variables that range from 1 to 5. *Financial knowledge* is a categorical variable that ranges from 0 to 4. *Government approval*, *Open economy*, *Elimination of subsidies*, and *Debt payment* are categorical variables that range from -1 to 1. The numbers in parentheses are standard deviations of the variables.

	2018			2019		
	Economic lesson	Venezuela	Control	Economic lesson	Venezuela	Control
Male	0.489	0.491	0.494	0.455	0.468	0.469
	(0.5)	(0.5)	(0.5)	(0.498)	(0.499)	(0.499)
Age	2.906	3.033	3.034	2.989	3.013	3.289
	(1.316)	(1.39)	(1.419)	(1.402)	(1.406)	(1.385)
Education	3.207	3.245	3.177	3.276	3.276	3.122
	(0.793)	(0.779)	(0.815)	(0.799)	(0.814)	(0.864)
Income	1.942	2.017	1.980	2.036	1.983	1.982
	(1.081)	(1.102)	(1.129)	(1.177)	(1.18)	(1.161)
Financial knowledge	1.191	1.201	1.266	1.338	1.281	1.195
	(1.153)	(1.165)	(1.202)	(1.13)	(1.126)	(1.125)
Government approval	-0.287	-0.215	-0.237	-0.467	-0.530	-0.507
	(0.845)	(0.874)	(0.877)	(0.744)	(0.712)	(0.773)
Open economy	-0.154	-0.108	-0.203	-0.206	-0.235	-0.249
	(0.86)	(0.878)	(0.857)	(0.853)	(0.832)	(0.846)
Subsidies cut	-0.183	-0.182	-0.183	-0.166	-0.291	-0.277
	(0.912)	(0.931)	(0.931)	(0.936)	(0.902)	(0.909)
Debt payment	0.044	0.049	-0.040	-0.055	-0.073	-0.152
	(0.876)	(0.871)	(0.879)	(0.868)	(0.86)	(0.87)
Number of observations	638	636	654	923	923	951

3.2 Results

Table 3.2 presents the results of the survey experiment in 2018. People who read the piece about the consequences of subsidized utilities and import and export restrictions ("an economic lesson") are more likely to support the opening of the economy and the debt payment. The coefficient for the "economic lesson" dummy is 8.3 and statistically significant at the 10% level when the opening of the economy approval is a dependent variable. The support for the *Debt payment* is 9.6 points higher than that in the control group, and the coefficient for the experiment dummy is statistically significant at the 5% level. Interestingly, there is no effect for the *Elimination of subsidies* approval, although the piece straightforwardly discusses the distorted incentives for customers and companies in the presence of subsidization. It is possible that I observe the effect for the two policies but do not observe it for the *Elimination of subsidies* because it is easier to estimate the impact of this policy on individual well-being, and people have stronger opinions on the issue that are more difficult to change with a short survey treatment. I fit OLS regression models to estimate the effect of the treatments on approval of the policies (defined as categorical variables).

People who were reminded of the recent experience of Venezuela are also more supportive of the opening of the economy and the debt payment by 10.2 and 8.8 points, respectively. The coefficient for the "Venezuela" treatment dummy is statistically significant at the 5% level in the regression with the opening of the economy approval as a dependent variable (column (1)), and at 10% with the *Debt payment* approval as a dependent variable (column (3)). There is no effect of the treatment on the *Elimination of subsidies* approval.

In the specifications without *Financial knowledge* as an explanatory variable, the "economic lesson" treatment also raises support for the *Open economy* by 7.8 points (significant at the 10% level) and for the *Debt payment* by 9.2 points (significant at the 5% level) in 2018. Those who read about the Venezuela experience are more likely to support the *Open economy* by 9.6 points (significant at the 5% level) and the *Debt payment* by 8.4 points (significant at the 10% level).[27] In 2019, in the specifications without *Financial knowledge,* the treatments dummies are not statistically significant.

These results suggest people's ability to become "economically educated". This research design does not permit for distinguishing between priming and learning effects. People who were assigned to treatments already could have had opinions on the issues consistent with the message of the pieces. The treatments just reminded them of these pre-existing opinions. Alternatively, they could have learned a "lesson" and started looking more favorably upon the pro-market economic policies. Whatever the mechanism behind this relationship, the evidence shows that people may change their policy preferences when they encounter relevant information.

[27] The OLS regression specifications that do not include *Financial knowledge* are not reported.

Table 3.2 The effect of the "economic lesson" and "Venezuela" treatments on economic policy approval in 2018: OLS regression

The table presents the effect of the two treatments – the "economic lesson" and the "case study" of Venezuela - on the approval for the pro-market economic policies. Column (1) presents the effect on the elimination of the trade barriers, column (2) on the elimination of subsidies, column (3) on the debt payment. The comparison group is the control group rather than the rest of the sample. The numbers in parentheses are robust standard errors. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Dependent variable:	Open economy	Subsidies cut	Debt payment
	(1)	(2)	(3)
"Venezuela"	0.102	0.007	0.088
	(0.045)**	(0.048)	(0.047)*
"Economic lesson"	0.083	0.035	0.096
	(0.045)*	(0.048)	(0.047)**
Financial knowledge	0.057	0.074	0.043
	(0.012)***	(0.013)***	(0.012)***
Male	0.006	0.010	-0.030
	(0.027)	(0.029)	(0.028)
Macri partisan	0.689	0.737	0.631
	(0.038)***	(0.041)***	(0.039)***
Age dummies	Yes	Yes	Yes
Education dummies	Yes	Yes	Yes
Income dummies	Yes	Yes	Yes
R^2	0.120	0.130	0.093
Number of observations	3840	3840	3840

Table 3.3 presents the results of the survey experiment in 2019. The dummy coefficients for both treatments do not reach the conventional level of significance in regressions with *Open economy* and *Debt payment* as dependent variables. At the same time, they are relatively large in magnitude, and their signs are consistent with the hypothesis. The "economic lesson" dummy is marginally significant at the 19% level for the support of the *Open economy* (column (1)) and at the 14% level for the support of the *Debt payment* (column (3)). Unlike in the 2018 sample, respondents in this condition are more supportive of the *Elimination of subsides*. The coefficient for the treatment dummy is 10.1 and statistically significant at the 5% level. The coefficient for the "Venezuela" dummy is marginally significant at the 18% level in the regression with the *Debt payment* as a dependent variable.

Table 3.3 The effect of the "economic lesson" and "Venezuela" treatments on economic policy approval in 2019: OLS regression

The table presents the effect of the two treatments – the "economic lesson" and the case study of "Venezuela" - on the approval for the pro-market economic policies. Column (1) presents the effect on the elimination of the trade barriers, column (2) on the elimination of subsidies, column (3) on the debt payment. The comparison group is the control group rather than the rest of the sample. The numbers in parentheses are robust standard errors. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Dependent variable:	Open economy	Subsidies cut	Debt payment
	(1)	(2)	(3)
"Venezuela"	0.028	-0.013	0.053
	(0.038)	(0.041)	(0.039)
"Economic lesson"	0.050	0.101	0.058
	(0.038)	(0.041)**	(0.04)
Financial knowledge	0.016	0.058	0.057
	(0.012)	(0.013)***	(0.013)***
Male	0.021	0.009	0.021
	(0.028)	(0.03)	(0.029)
Macri partisan	0.627	0.622	0.555
	(0.048)***	(0.052)***	(0.05)***
Age dummies	Yes	Yes	Yes
Education dummies	Yes	Yes	Yes
Income dummies	Yes	Yes	Yes
R^2	0.065	0.072	0.061
Number of observations	3725	3725	3725

I repeat the analysis on several specific subsamples of the population. The results are consistent with previous research. Respondents who claim that they do not have a preferred party are more likely to support the *Open economy* and the *Debt payment* if they received one of the treatments, compared to non-partisans in the control group. Consistent with our knowledge of motivated reasoning, the treatment has no effect on Macri partisans and on Kirchner partisans (not reported). Respondents who receive fewer than 2 points on the financial literacy test are more likely to support the *Open economy* if they are assigned to one of the treatments, compared to peers with low financial knowledge in the control group. The coefficients for the treatment dummies are significant at the 1% on the subsample of respondents older than 46 years-old in the regression with the *Open economy* as a dependent variable. Older respondents in the treatment condition are also more likely to support the other two policies if they receive "an economic lesson", as opposed to older respondents in the control group.

In addition to subsampling, I analyze the heterogeneous effects of the treatments on the full sample with interaction terms between the treatments' dummies and key controls (not reported). The interaction terms are not significant in most specifications. The exceptions are the interactions between terms with *Age* and *No partisan* dummy. Each additional age category adds 5.2 points to the *Open economy* approval (significant at the 5%) among those who read about Venezuela and 6 points among those who received "an economic lesson", compared to others who received treatment. The older one is, the more likely she supports the *Elimination of subsidies* if she was assigned to "an economic lesson" treatment (by 8.9 points with each age category, significant at the 1%), and the *Debt payment* (by 4.4 with each age category, significant at the 10%), compared to others in the treatment condition. Also, non-partisans who

received the "lesson" treatment are more likely to support the *Open economy* (by 12.2 points, significant at the 10%) and the *Elimination of subsidies* (by 13.9 points, significant at the 10%).

Although overall the treatments have no effect on support for economic policies in 2019, they do have an effect among certain kinds of respondents. In particular, respondents in all subsamples presented in Table 3.5 (non-partisans, those who scored lower than 2 points on the financial literacy test, those whose educational level was no higher than elementary school, respondents older than 46 years-old, and respondents with an income lower than minimum wage) are more supportive for the *Elimination of subsidies* if they received the "lesson" treatment (at the 10% level of significance), compared to their peers in the subsample who remain in the control group. Less financially educated, older and poorer respondents are more likely to approve the *Debt payment* if they read the "economic lesson" piece. Non-partisans, less financially educated, and poorer respondents are also more supportive of the *Debt payment* if they read the piece about Venezuela, compared to individuals in the same subsamples in the control group. The interaction terms between the treatments' dummies and the controls are not significant in the 2019 sample (not reported).

Table 3.4 Heterogeneous effects of the treatments in 2018: OLS regression (Panel A)

The table presents the effect of the two treatments – the "economic lesson" and the "case study" of Venezuela - on the approval of pro-market economic policies among different subsamples of the population. Panel A presents the effect on the elimination of the trade barriers, Panel B on the elimination of subsidies, Panel C on the debt payment. Column (1) presents the effect on non-partisans, column (2) on respondents scoring lower than 2 points on the financial literacy test, column (3) on respondents who haven't finished high school, column (4) on respondents older than 46, and column (5) on respondents who earn less than minimum wage. The numbers in parentheses are robust standard errors. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Panel A					
Dependent variable:	Approve open economy				
	Non-partisans	Low financial knowledge	Low education	Old respondents	Low income
"Venezuela"	0.148	0.113	0.258	0.204	0.088
	(0.064)**	(0.055)**	(0.104)**	(0.073)***	(0.065)
"Economic lesson"	0.136	0.141	0.094	0.257	0.062
	(0.064)**	(0.055)**	(0.101)	(0.075)***	(0.063)
Financial knowledge	0.072	-	0.127	0.069	0.034
	(0.018)***	-	(0.035)***	(0.019)***	(0.019)*
Male	0.037	0.007	0.017	-0.001	0.017
	(0.039)	(0.033)	(0.063)	(0.044)	(0.039)
Macri partisan	-	0.639	0.512	0.811	0.617
	-	(0.05)***	(0.112)***	(0.059)***	(0.063)***
Age dummies	Yes	Yes	Yes	No	Yes
Education dummies	Yes	Yes	No	Yes	Yes
Income dummies	Yes	Yes	Yes	Yes	No
R^2	0.045	0.094	0.109	0.160	0.071

Table 3.4 Heterogeneous effects of the treatments in 2018: OLS regression (Panel B and C)

Panel B					
Dependent variable:	Approve elimination of subsidies				
"Venezuela"	0.088	0.000	0.001	-0.001	0.019
	(0.071)	(0.06)	(0.116)	(0.078)	(0.071)
"Economic lesson"	0.110	0.028	-0.094	0.257	-0.040
	(0.07)	(0.06)	(0.113)	(0.081)***	(0.069)
Financial knowledge	0.083	-	0.159	0.090	0.053
	(0.019)***	-	(0.039)***	(0.021)***	(0.021)**
Male	0.021	0.006	-0.009	-0.003	-0.018
	(0.043)	(0.036)	(0.069)	(0.047)	(0.042)
Macri partisan	-	0.685	0.594	0.796	0.788
	-	(0.054)***	(0.124)***	(0.063)***	(0.069)***
Age dummies	Yes	Yes	Yes	No	Yes
Education dummies	Yes	Yes	No	Yes	Yes
Income dummies	Yes	Yes	Yes	Yes	No
R^2	0.049	0.094	0.105	0.159	0.090
Panel C					
Dependent variable:	Approve debt payment				
"Venezuela"	0.140	0.094	0.068	0.101	0.113
	(0.066)**	(0.058)	(0.11)	(0.074)	(0.069)
"Economic lesson"	0.136	0.060	-0.038	0.194	0.152
	(0.065)**	(0.058)	(0.107)	(0.077)**	(0.067)**
Financial knowledge	0.030	-	0.087	0.061	0.035
	(0.018)*	-	(0.037)**	(0.02)***	(0.02)*
Male	0.007	-0.020	-0.003	-0.038	-0.049
	(0.04)	(0.035)	(0.066)	(0.045)	(0.041)
Macri partisan	-	0.558	0.526	0.798	0.575
	-	(0.053)***	(0.118)***	(0.06)***	(0.067)***
Age dummies	Yes	Yes	Yes	No	Yes
Education dummies	Yes	Yes	No	Yes	Yes
Income dummies	Yes	Yes	Yes	Yes	No
R^2	0.029	0.068	0.074	0.151	0.069
Number of observations	1903	2431	644	1518	1708

Table 3.5 Heterogeneous effects of the treatments in 2019: OLS regression (Panel A)

The table presents the effect of the two treatments – the "economic lesson" and the case study of "Venezuela" - on the approval for pro-market economic policies among different subsamples of the population. Panel A presents the effect on the elimination of the trade barriers, Panel B on the elimination of subsidies, Panel C on the debt payment. Column (1) presents the effect on non-partisans, column (2) on respondents scoring lower than 2 points on the financial literacy test, column (3) on respondents who haven't finished high school, column (4) on respondents older than 46, and column (5) on respondents who earn less than minimum wage. The numbers in parentheses are robust standard errors. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Panel A					
Dependent variable:	Approve open economy				
	Non-partisans	Low financial knowledge	Low education	Old respondents	Low income
"Venezuela"	0.056	-0.014	-0.022	-0.035	-0.030
	(0.054)	(0.047)	(0.091)	(0.06)	(0.054)
"Economic lesson"	0.066	0.050	-0.019	0.088	0.007
	(0.054)	(0.047)	(0.093)	(0.061)	(0.055)
Financial knowledge	0.035	-	-0.055	0.035	-0.014
	(0.018)**	-	(0.034)	(0.02)*	(0.018)
Male	0.031	0.035	-0.048	0.021	0.003
	(0.039)	(0.035)	(0.068)	(0.044)	(0.04)
Macri partisan	-	0.577	0.461	0.673	0.437
	-	(0.063)***	(0.139)***	(0.07)***	(0.083)***
Age dummies	Yes	Yes	Yes	No	Yes
Education dummies	Yes	Yes	No	Yes	Yes
Income dummies	Yes	Yes	Yes	Yes	No
R^2	0.024	0.055	0.047	0.069	0.029

Table 3.5 Heterogeneous effects of the treatments in 2019: OLS regression (Panel B and C)

Panel B					
Dependent variable:	Approve elimination of subsidies				
"Venezuela"	-0.038	-0.040	-0.001	-0.056	0.090
	(0.059)	(0.051)	(0.093)	(0.063)	(0.058)
"Economic lesson"	0.110	0.096	0.163	0.108	0.106
	(0.059)*	(0.052)*	(0.096)*	(0.064)*	(0.059)*
Financial knowledge	0.099	-	0.070	0.092	0.035
	(0.019)***	-	(0.035)**	(0.021)***	(0.02)*
Male	0.035	0.005	-0.030	-0.040	0.006
	(0.043)	(0.038)	(0.07)	(0.046)	(0.043)
Macri partisan	-	0.614	0.762	0.752	0.509
	-	(0.069)***	(0.144)***	(0.073)***	(0.09)***
Age dummies	Yes	Yes	Yes	No	Yes
Education dummies	Yes	Yes	No	Yes	Yes
Income dummies	Yes	Yes	Yes	Yes	No
R^2	0.049	0.057	0.082	0.100	0.045
Panel C					
Dependent variable:	Approve debt payment				
"Venezuela"	0.113	0.084	0.019	0.037	0.109
	(0.055)**	(0.048)*	(0.089)	(0.06)	(0.056)*
"Economic lesson"	0.053	0.115	0.022	0.108	0.147
	(0.055)	(0.049)**	(0.091)	(0.061)*	(0.057)***
Financial knowledge	0.098	-	0.040	0.029	0.020
	(0.018)***	-	(0.033)	(0.02)	(0.019)
Male	0.012	0.003	-0.051	-0.022	-0.033
	(0.04)	(0.036)	(0.066)	(0.044)	(0.041)
Macri partisan	-	0.533	0.584	0.657	0.373
	-	(0.065)***	(0.136)***	(0.07)***	(0.086)***
Age dummies	Yes	Yes	Yes	No	Yes
Education dummies	Yes	Yes	No	Yes	Yes
Income dummies	Yes	Yes	Yes	Yes	No
R^2	0.047	0.047	0.059	0.081	0.047
Number of observations	1883	2261	639	1646	1715

3.3 Discussion

In this chapter, I present the results from two identical survey experiments conducted on the same population at two different points in time. However, I do not observe an identical treatment effect. This example illustrates the importance of temporal validity - a special form of external validity. Social scientists employ experimental research designs to test their theories in random samples of the population to be able to make causal claims about relationships of social phenomena (McDermott, 2002). Survey experiments have become particularly popular among political scientists who study public opinion (Mutz, 2011). With this methodological tool, researchers can manipulate the nature, the amount, the order, and the framing of information that their subjects encounter. Thanks to technological advances, it is relatively easy and inexpensive to implement. Experimenters "seek to establish causal relationships that are generalizable – that is, they try to maximize internal and external validity" (Barabas and Jerit, 2010). In general, experimental studies have a high degree of internal validity (Angrist and Pischke, 2010). However, their external validity is often questioned (Krupnikov and Levine, 2014). Compared to observational studies, experiments generate estimates of causal effects on "a given population, in a given place and time" (Samii, 2016). The ultimate goal of social science is to generate knowledge that can be extrapolated to make predictions about phenomena in a different context in the future. With respect to my study, I seek to estimate the effect of non-partisan relevant information on policy preferences.

Problems with generalizability may lead to biased conclusions because of publication bias. There is an important publication bias in survey experiments. Franco et al. (2014) identify 221 survey-based experiments sponsored by National Science Foundation, which means that they passed a rigorous peer review process. They show that strong results are 40 percentage

points more likely to be published than null results, and 60 percentage points are more likely to be written up. Temporal validity is another factor that scholars have to consider when they aggregate knowledge on a topic. It is possible that survey experiments with strong results were conducted in conditions particularly favorable for a detection of a treatment effect. At the same time, other studies with similar research questions carried out in a different context might have never been written up or published.

Dunning et al. (2019) implemented a novel approach to cumulative learning, when seven independent teams of researchers coordinated the design of experiments fielded in six countries. Their common research question concerned the role of information in democratic accountability. Previous studies "paint a mixed picture" and "suffer from limited replication, heterogeneity of measurement and design, and publication biases." Dunning et al. (2019) find that, overall, nonpartisan information campaigns do not shape voting behavior.

What kind of biases can compromise the external validity of experimental studies in general, considering that they produce estimates of effects "on a given population, in a given place and time"? Evidence from other fields demonstrates that results of similar interventions are context-dependent. For example, Vivalt (2016) analyzes estimates from 635 papers on development economics and finds a lot of heterogeneity. Getcher (2015) extrapolates the results of two experiments (about cash transfers and remedial education) derived in one context and applied to another and concludes that "casual effects from one place may be only partially informative about effects elsewhere." Allcott (2014) argues that "site selection bias" can be a serious issue and demonstrates the problem through the results from 111 experiments on energy usage in the US. In social psychology, Paluck et al. (2018) summarize findings from 27

randomized field experiments on the effect of inter-group contact on prejudice. They conclude that the results are weaker and more context-dependant than previously thought.

In survey experiments, site selection and population selection biases are less important because they are often conducted on nationally representative samples (Druckman et al., 2016). However, temporal validity remains an issue. Munger (2019) notes that "academic research takes place as time advances", and "knowledge decay" in a fast-changing world is potentially a large source of error. He discusses two mechanisms behind this error – dynamic composition of the population and a non-stable causal effect. In the first case, new subgroups may enter the population, and the heterogeneous effect of the treatment would be unknown for these groups, even when the sample is large and nationally representative. The second mechanism implies that the same individual responds differently to the same treatment at different points in time because of changing macro-conditions. The combination of the two features when the population is dynamic and the treatment effect is non-stable is also possible. Rosenzweig and Udry (2016) provide evidence for the second mechanism. They recognize that "the world is stochastic and subject to aggregate shocks—weather shocks, technological shocks, price shocks—that can affect the entire population simultaneously." They identify several high-profile studies in which estimates of the treatment effect from a single year were inflated because of pre- and port-treatment conditions randomly different from the average. With more data, they are able to estimate the parameters of the distribution of aggregate shocks and the interaction between shocks and treatment effects.

I suggest that the evidence presented in this chapter is also an example for the second mechanism. It is unlikely that the population composition has changed considerably in the interval between the two surveys. Both surveys were conducted in the same 30 localities in the

city of Buenos Aires, greater Buenos Aires area, and the Buenos Aires province. I applied the same sampling procedure. But it is likely that the aggregate environment changed in the interval between the surveys. The first survey took place during a time of economic growth; the second one was implemented during a recession.

One of the reasons why the "economic lesson" and the Venezuela "case study" increased support for the *Open economy* and the *Debt payment* in 2018 but did not increase support in 2019 might be the negative economic shock between the two surveys. The discrepancy between the results in 2018 and 2019 exists despite the fact that I had 45% more observations in both treatment and control groups in the second survey compared to the first. By the negative shock, I refer to the drastic change in the economic situation in Argentina between January-February 2018 and January-February 2019. According to the World Bank, in 2017 Argentina experienced economic growth 2.7%. In fact, this number may be higher. First, the quality of statistics declined during the Kirchner presidency because the national statistic agency manipulated the inflation figures. Second, it is challenging to calculate economic growth precisely when inflation is soaring – small errors in inflation estimates lead to large errors in GDP estimates. Indirect measures demonstrate that Argentina's economy had been rising in 2017. Specifically, new car sales grew by 27%, apartment sales (in the city of Buenos Aires) increased by 41%, and Argentines' international tourist expenditures increased by 25%. In addition, inflation was the lowest in years (24.8%), real income went up, and the poverty rate fell to 25.7%. The real peso appreciated by 24% against the dollar during 2016-2017. An economic crisis, initially caused by external factors, started in the first half of 2018. The largest drought in 50 years reduced the production of export-oriented agricultural products. In addition, the prices for soybeans, a major export, were at the lowest levels in a decade. These factors resulted in trade deficit. Additionally,

investors returned to the US from emerging markets, including Argentina, after the rise in US interest rates. The result was the devaluation of the peso against the dollar by more than 100%. The Macri administration requested a loan from the IMF. In 2018, the economy contracted by 2.5%. Inflation reached almost 48%, and real income declined. In 2019, unemployment rose to 10% and the poverty rate to higher than 35%.

There might be two explanations of the weaker treatment effect due to the economic crisis. First, even in the 2018 sample the variance explained by the treatments and controls is not very large (R- squared is equal to 9-13%). This means that there are many omitted variables in the models. The economic shock could have changed the effect of unobservable factors. Second, the economic shock makes factors that define attitudes towards policies noisier. On one hand, the effect of the treatment assigned randomly can be estimated without any controls. On the other hand, in relatively small samples control variables help to estimate the treatment effect more precisely. The fact that determinants of attitudes towards economic policies became noisier from one survey to another is manifested in the lower R-squared in the 2019 regression models when compared to the 2018 models. I conduct the same analysis with the data from two years. The dependent variables are based on the same questions. I use the same set of controls. However, the R-squared in the full specification with the *Open economy* as a dependent variable is 16.2% in 2018 and 12% in 2019, with the *Elimination of subsidies* 15.5% and 11.2%, and with the *Debt payment* 10.7% and 10.4% (columns (2) and (4) in Table 2.3, ch.2). The difference in the variance explained is even more dramatic in the regressions with the experiments' dummies presented in Tables 3.4 and 3.5. The R-squared in the regressions with the *Open economy* as a dependent variable is 12% in 2018 and 6.5% in 2019 (column (1)), respectively), with the

Elimination of subsidies 13% and 7.2% (column (2)), respectively), and with the *Debt payment* 9.3% and 6.1% (column (3)), respectively).

To test the possibility that the economic shock made the treatment effect weaker in 2019, I try to separate the subsamples who might suffer more or less form this shock. I estimate whether the treatment effect was lower/stronger than the average. For example, public workers suffer less because they have a secure employment and indexed earnings. I also look at subsamples according to individuals' subjective evaluation of their past and present well-being. I do not find a statistically significant difference between the treatment effect in these subsamples and the entire 2019 sample. It may be due to the fact that there no sufficiently large number of observations in the subsamples to capture the difference. Also, it is not easy to separate individuals who were hurt more or less from the economic crisis.

The economic shock might be one of the reasons why the magnitude of the treatment effect decreased from one survey to another. I discuss possible mechanisms how this shock makes the estimation of the treatment effect more problematic. Other explanations of the variability of the treatment effect and other mechanisms of the shock effect, if this is the reason of the variability, may exist. For example, one of the two treatments discusses the situation in Venezuela. It has changed considerably in the interval between the two surveys. The economic and political crisis in this country reached a level of international emergency. Juan Guaidó challenged Maduro's presidency and declared himself president, although he was unable to unseat Maduro from power. During these events, the media coverage of news from Venezuela in Argentina increased significantly. This means, first, that it could be difficult to change opinion of the respondents in the treatment group because they already had information about the situation in Venezuela prior to the "case study" treatment. Second, respondents in the control group were

also aware of the information provided by the treatment. Also, one of my dependent variables considers the repayment of the old debt left from the 2001 crisis. In the first half of 2018, Argentina had to apply for another IMF loan to stabilize its economy. This decision created controversy, since the IMF is not viewed favorably by many people in Argentina. This important consideration could influence respondents' views in the treatment condition and make the treatment effect weaker. In sum, these events changed the salience of the survey treatment and the outcome in question. This change in salience might have made the estimation of the treatment effect more problematic.

3.4 Conclusion

This chapter provides an example of the identical survey experiments performed at two different points in time. The population in both surveys is supposed to be identical. However, the opinions they state in response to the survey questions differ, likely because of the change in macro conditions in the interval between the two surveys. In the first year their reaction to the survey treatment was consistent with the hypothesis. In particular, respondents in the treatment condition demonstrated higher support for two out of three pro-market economic policies. In the second year, I only partially observe this relationship. The signs of the coefficients are in line with the hypothesis, but the confidence intervals are wider compared to the 2018 results.

Advances in experimental research in social sciences led to a "credibility revolution." Design-based studies produce internally valid estimates of relationships in social phenomena. However, how far scholars and practitioners can go in extrapolating results received in one context in the past to another context in the future is always an open question. Temporal validity

is a concern for survey-based studies that suffer less from other biases that compromise external validity (such as site selection and population selection biases).

Rosenzweig and Udry (2016) note that causal effects might vary because of aggregate shocks that the entire population experiences. The implication is that "the confidence interval of the estimated parameters from a single-year study does not provide guidance for external validity in a stochastic setting." They suggest incorporating the intertemporal distribution of the external shocks that very likely widen the estimated confidence interval of the causal effects. Unfortunately, it is often not possible because of data limitations. For example, in my study it is challenging to estimate the effect of economic shock on individual well-being. Munger (2019) indicates that social scientists put too much emphasis on empirics and research designs. In his opinion, novel theorizing and qualitative research would help to better address the limitations of studies with low external validity. The results presented in this chapter suggest that it may be useful to describe the context in which the survey results are derived so that one can, at least, qualitatively evaluate whether they are replicable in another context.

CHAPTER 4

Financial knowledge and policy-specific knowledge, income underreporting, and attitudes towards corruption

In Chapter 2, I provide evidence that more knowledgeable people have different preferences compared to those who remain ignorant. Previous literature and my own findings presented in Chapter 3 suggest that people can be educated. People who are already knowledgeable may be different from the rest of the population in other aspects as well.

The goal of this chapter is to discuss other outcomes to which financial knowledge may lead, beyond policy preferences. I hypothesize that financially educated people have a distinct analytical and ethical perspective on the reality surrounding them. Knowing that, we may have a better guess as to what traits people develop after knowledge acquisition. Specifically, I analyze their differences in three dimensions.

First, I examine whether financially literate people have more correct factual information about economic issues of the day. Previous research finds that knowledge of policy-specific information changes political judgments about relevant issues. General political knowledge is not equal to knowledge of policy-specific facts (Gilens, 2001, Jerit and Barabas, 2009). I argue that a measure of knowledge in a specific domain, economic knowledge, is better suited than general political knowledge tests to estimate the effect of knowledge on expertise regarding the current economic reality. I ask a factual question about the dynamics of consumer prices. I investigate

the association between financial education and factual knowledge about inflation, controlling for party identification, the strongest predictor of answers to these types of questions. I find that individuals with a higher level of financial knowledge are more likely to give a correct answer to the question about inflation. This finding suggests that specific domain knowledge helps people process and remember correct factual information about current political issues, despite partisan identity.

Second, I study the relationship between financial education and an individual's propensity to misreport her income. This question is related to the literature that studies the relationship between tax evasion and ethics. One of the variables that shapes ethics is education. Researchers find evidence for both a positive and a negative effect of education on attitudes towards tax compliance. My analysis provides support for the first hypothesis – there is a positive correlation between financial knowledge and correct reporting of income.

Finally, I investigate whether financially educated people are better at identifying structural problems for long-term economic development. Voters are often criticized for being superficial in their political decisions. I focus on one aspect of the lack of depth in their thinking – tolerance for corruption. I test whether financial knowledge increases the probability of choosing corruption as the main problem of the country. I find that, although financially educated people do not perceive corruption to be higher than do average respondents, they do think that corruption is the main problem of the country. However, this result does not hold when respondents face the economic crisis, even though an information shock related to corruption takes place at the same time. This finding sheds light on the empirical puzzle that political scientists try to solve – why people continue supporting corrupt politicians. When both economic problems and corruption come into play, people put more weight on the first factor, and this

holds true even for the most financially knowledgeable individuals. At the same time, in both the 2018 and 2019 surveys, people with a higher level of financial knowledge select education, another driver of long-term economic development, as the main problem of the country.

4.1 Hypotheses

4.1.1 Financial knowledge and policy-specific expertise

Previous research shows that both general political knowledge and knowledge of policy-specific facts play a role in shaping policy preferences. Some scholars investigate the relation between these two types of individual competences to see how they influence each other in order to better understand the mechanism behind the effect of knowledge on preferences. Achen and Bartels (2016) observe a curvilinear effect of general knowledge on policy-specific knowledge. They cite the results from the American National Election Study (ANES) in 1996, when the factual question about a highly salient political issue – dynamics of a budget deficit during the Clinton administration – was asked. During his presidency the deficit had fallen substantially. Among the least politically informed, both Republicans and Democrats were equally likely to say that the deficit increased as they were to say that it decreased. Moderately informed Republicans were less likely to give the right answer because they were informed enough to know that a Democrat was in office and, for the Republican voter, Democrats usually do a bad job. Even the best informed Republicans who are expected to be exposed to the important factual information of the day refused to admit the success of the political opponent. Bartels (2002) emphasizes that it is not political knowledge but party identification that is "a pervasive dynamic force shaping citizens' perceptions of, and reactions to, the political world". This driver for political judgments

is so powerful that people even "create their own facts" to align them with their partisan loyalties (Achen and Bartels, 2016). Gilens (2001) does not break up the sample by party identification but also shows that many people who are fully informed according to general political knowledge tests may, nevertheless, be ignorant about policy-specific information. However, he demonstrates that policy-specific facts have a stronger influence on the change in policy preferences of respondents with higher levels of political knowledge in an experimental setting, possibly thanks to higher cognitive capacity.

Throughout this dissertation, I argue that it might be useful to look at a different measure of knowledge when we aim to estimate the effect of knowledge on political perceptions. To answer correctly questions about the budget deficit, economic knowledge is more helpful than general political knowledge. Individuals with a higher level of economic knowledge are likely to be aware of what a budget is, what the deficit is, and what the consequences of large budget deficits are. When they encounter information about budget deficits, they better understand what an increased or decreased deficit means for the country's finances. Because this information is meaningful to these individuals, it is easier for them to remember it.

In general, knowledge reflects cognitive capacity (as well as education). The causal link in the relationship between knowledge and cognitive capacity goes in both directions. On one hand, people become more knowledgeable thanks to their higher innate ability, which includes cognitive skills. On the other hand, the better educated they are, the higher their cognitive capacity becomes (Anderson, 1995, Perkins and Salomon, 1989). With respect to economic knowledge, causal arrows are also likely to go in both directions. It becomes a self-fulfilling circle. People become more knowledgeable about economics because of their superior cognitive skills (if they have opportunities to learn). Once they become economically educated, it is easier

for them to process, analyze, and elaborate on economically related issues. This relationship should be linear in contrast with general political knowledge.

H1: Individuals with higher scores on the financial literacy test have a higher probability to answer correctly factual questions about current economic issues.

4.2.2 Financial knowledge and income self-reporting

I study whether financially educated people are more likely to report their income honestly. This question is related to the literature about the relationship between tax evasion and ethics. Education is one of the factors that shape ethics. There is no agreement among scientists about the role of education in tax evasion and tax avoidance (McGee and Ross, 2014, McGee, 2012). Some studies find that more education leads to more averse attitudes towards tax evasion (Richardson, 2006, Kasipilai et al., 2003, Eriksen and Fallan, 1996). Others demonstrate just the opposite (McGee and Tyler, 2006). There can be several mechanisms at work behind the positive correlation between education and tax compliance. On one hand, more educated people tend to have more respect for the rule of law. They may better understand why it is important to pay taxes and how to pay them. They may also see the benefits of tax compliance because people with higher formal income have access to financial products, such as credit cards, consumer loans, and mortgages. They also do not run the risk of being caught and penalized for tax evasion. On the other hand, education is correlated with income, and people with high income are usually taxed more than poor people. They may resent paying higher taxes, especially if they are not sure that they are spent in an efficient way. In addition, their education helps them hide income and get away with it. My data are based on surveys, and I have no way to measure tax

evasion directly. Sincere income reporting and tax compliance are not equal to each other. However, there is research that shows that the same groups of taxpayers who underreport their income to tax authorities underreport it in surveys (Hurst et al., 2014). In this chapter, I test the following hypothesis:

H2: Financially educated people are less likely to hide their income

4.2.2 Financial knowledge and evaluation of the main problems of the country

Voters are often criticized for judging, comparing, and electing politicians according to superficial perceptions that have nothing to do with politicians' competence and effort. In the most extreme view, such voting behavior makes "election outcomes, in an important sense, random" (Achen and Bartels, 2016). Voters' myopia can be manifested in several ways. They may pick politicians because of their personality traits, such as appearance (Olivola and Todorov, 2010). They may punish and reward incumbents for events that clearly lay beyond their control, such as commodity booms (Campello and Zucco, 2016). Political scientists agree that the most sensible tool voters have is economic voting, but they overweigh recent relative to overall performance and let the rhetoric about economic performance shift their judgments (Huber et al., 2012).

I focus on one facet of voters' ignorance – tolerance for corruption. Empirical evidence suggests that corrupt politicians often become reelected, especially in developing democracies, although democratic institutions are supposed to limit malfeasance (De Vries and Solaz, 2017, Lederman et al., 2006, Warren, 2004). Political scientists suggest several mechanisms behind

this puzzle. Cross nationally, electoral rules and institutions may increase the difficulty of ousting dishonest politicians (Persson et al., 2003). Historical or cultural traditions can lead some countries to be more corrupt than others (Treisman, 2000, Fisman and Miguel, 2007). Nations can be stuck in a corruption trap (Caselli and Morelli, 2004). On an individual level, most studies show that voters recognize corruption as a problem. However, they may not have enough information about it (Ferraz and Finan, 2008, Winters and Weitz-Shapiro, 2013). Also, such politicians may be elected if they deliver other benefits, such as economic growth or public goods (Klasnja and Tucker, 2013, Breitenstein, 2019). There is mixed evidence in support of the latter, trade-off hypothesis, and it may have greater relevance for particular subsets of the population. Some studies show that the poor care less about corruption, possibly because they are too busy meeting their basic needs (Figuereido et al., 2011). Others suggest that the upper classes are more tolerant of corruption, possibly because they are less exposed to petty corruption but may personally gain from corrupt transactions on a higher level (Winters and Weitz-Shapiro, 2013).

I suggest another dimension in which individuals may differ in their tolerance for corruption – economic knowledge. Economic research shows that corruption is detrimental for long-term economic growth (Gyimah-Brempong, 2002, Gupta and Abed, 2002). I hypothesize that financially educated individuals have less tolerance for corruption than do average voters. This is so because financially educated individuals know that corruption is harmful to economic development, and they value politicians' trustworthiness over delivery of public goods.[28]

[28] There can be other explanations of the choice of corruption as the main problem of the country. Perhaps an individual is concerned with the moral side of the problem or the role of special interest groups. The wording of the question does not permit discrimination between different explanations.

H3: Financially educated people put more weight on structural problems for economic development, such as corruption, than on recent economic fluctuations in their evaluation of country's problems

4.2 Empirical tests

4.2.1 Expertise regarding current economic events

I measure expertise regarding current economic events by using the answer to the factual question about inflation: "Would you say that during January-June 2017 the inflation was higher, lower, or the same as in January-June 2016?" There is just one right answer to this question. The inflation in January-June 2017 was less than half the inflation in January-June 2016. Argentina is a nation with a long history of high inflation. For the last ten years inflation has always been above 20%. Not surprisingly, inflation is a regular topic in newspaper articles and everyday conversations. The sharp decline in inflation in 2017 was widely discussed by the media.

I asked the question about inflation in the second wave of the panel in June 2017. Such a question would be typical for a test of knowledge of policy-specific facts. From previous literature we know that party identification is the strongest predictor of answers to questions of this sort (Bartels, 2002, Bullock and Lenz, 2019). When "your" party is in office, inflation is perceived to be declining. If the office is held by an opponent, inflation seems to be on the rise. When I estimate the correlation between financial education and the evaluation of the consumer prices dynamics, I control for partisanship.

4.2.2 Income underreporting

I examine the relationship between financial knowledge and an individual's propensity to underreport her income in a survey. This question is related to the literature that studies the link between education and tax evasion. Most evidence comes from broadly designed studies with country-level characteristics as units of analysis or individual-level *perceptions* of the acceptability of tax evasion. My test is different in two ways. First, I use an individual-level measure of specific knowledge – financial knowledge. Second, instead of abstract questions referring to tolerance towards tax evasion, which may contain social desirability bias, I look at actual individual behavior. It is sure that underreporting one's income in a survey is not equal to tax evasion. However, some research shows that those who distort their income for authorities also misreport it in household surveys (Hurst et al., 2010).

To measure underreporting, I use the discrepancy between self-reported income and expenditures. Since Pissarides and Weber (1989) develop this tool, scholars regularly use this technique to estimate the size of the black economy and tax evasion.[29]

I ask several questions about assets, such as whether an individual owns a home, a car, or a computer, and has access to hot water and a sewage system. The survey also contains questions about spending. In particular, I ask whether an individual has traveled abroad over the last two years, whether she has a private medical insurance, whether she sends her kids to a private school, and whether she has problems feeding her family. In addition, I ask several questions about recent purchases. I include a dummy for social welfare receivers in the model.

[29] Pissarides and Weber (1989) use another important assumption, which is that formally employed do not avoid taxes, while self-employed can avoid them. I lessen this assumption because my goal is not to estimate the amount of underreporting but to rank individuals according to their probability of underreporting. Subsequent analysis shows that for the self-employed this probability is, indeed, higher.

I predict income for each individual with the following OLS regression:

$$Income_i = \alpha + \beta_1 Male_i + \beta_2 Edu_i + \beta_3 Age_i + \beta_4 Assets_i + \beta_5 Spending_i + \beta_6 Purchases_i + \beta_7 Welfare_i + \varepsilon_i$$

Next, I compare predicted income with self-reported income. My measure of underreported income is $-\varepsilon_i$. I multiply the residuals by -1, so that the larger values correspond to higher underreported income. Those individuals with the largest discrepancy (high predicted income and low self-reported income) are likely to underreport their income in the survey. I assume that respondents do not misreport their expenditures.

I measure underreporting for the years 2018 and 2019, when I asked identical questions about assets, spending, purchases, and welfare benefits. As with the effect of financial knowledge on economic policy preferences that I discuss in Chapter 2, it is important to find a consistent relationship between financial knowledge and income reporting across the two surveys because of the particular economic conditions that preceded each survey. Economic research shows that when income rises there can be a lag in spending growth and vice versa (Brown, 1952, Ganong and Noel, 2019). The Argentine economy experienced economic growth before the 2018 survey. It is possible that formal income of financially educated people grew at a faster pace and that their expenditures have not caught up yet. This may explain the lack of discrepancy between their income and spending. If this is the case, this relationship would disappear in 2019, when the economy was in decline and disposable income decreased, while expenditures might have been maintained at the high level for some time. If financially educated people continue reporting income consistent with their expenditures, it is likely because they do not hide their income.

I rely on assumption that respondents do not misreport their expenditures. Hurst et al. (2014) who study income underreporting in surveys based on expenditures validate this assumption by conducting two robustness checks. First, they examine whether people unconsciously substitute their personal expenditures with business expenses in case of self-employment. Then, some categories of expenditures would yield a different income prediction (because people may attribute to business their transportation expenditures for personal purposes and vice verse but are unlikely to classify their spending on food as business expenses). They find that income underreporting is nearly identical across different sub-categories of expenditures. Another possibility is that respondents consciously underreport their expenditures by the same percent they underreport their income. They divide expenditures into necessity and luxury good expenditures and analyze their structure with respect to income level. They do not find any irregularities and conclude that respondents are not likely to misreport their expenditures.

4.2.3 Corruption perception

Corruption was a salient issue in Argentina during the entire Macri presidency (2016-2019). The former president Cristina Kirchner is entangled in several court cases involving bribery, money laundering, and corruption. Supporters of Macri and Kirchner constitute two political camps that are polarized, to a great extent, over the issue of corruption. The name of the Macri party, Let's Change, refers to that cultural change that includes intolerance to corruption. During Macri's presidency, Argentina significantly improved its rank in the Corruption Perception Index published by Transparency International. It went up from the 107^{th} place in 2016 to the 66^{th} place in 2019.

I examine whether financially educated people give more weight to corruption than to current economic fluctuations in their evaluation of public affairs. First, I assess whether their perception of the level of corruption is different from the perception of an average respondent. In the 2018 survey, I ask a question about corruption perception: "How many of the following people do you think are involved in corruption, or haven't you heard enough about them?

- President and his administration
- Members of the parliament
- Government officials
- Local government representatives
- Tax officials
- Police
- Judges"

The aim of this question is to find out whether financially educated people are more concerned about corruption. If this is the case, it is possible that their concern makes them give more weight to corruption rather than their understanding that corruption is the reason for low economic growth. I create seven dummy variables that are equal to 1 if an individual thinks that representatives of these executive, legislative, or judicial branches of power are corrupt. Then, I create a variable *Corruption* that is a sum of these dummies (with 0 as a minimum value and 7 as a maximum one). A higher score on *Corruption* reflects a higher perceived level of corruption.

Next, in the 2018 and 2019 surveys, I ask a question about "the main problem of the country". The list of options included inflation, unemployment, corruption, poverty, education, crime, or other. Respondents were instructed to mark only one option. Two shocks took place in

the interval between the 2018 and 2019 surveys – the economic crisis and a major corruption scandal ("the notebook case"). I study how these two shocks shift perceptions of "the main problem of the country" among the public in general and among financially educated.

The notebook scandal refers to the revelation of the notebooks of the driver Oscar Centeno, who worked for public officials during the presidencies of Nestor and Cristina Kirchner. He frequently carried bags with cash to several public buildings and even the presidents' personal house. He kept notes of these transactions in his notebooks which he turned over to journalists and investigators. This money was payments for bribes. Several businessmen mentioned in the notebooks confessed they paid bribes in exchange for government contracts.[30]

Before and after the notebook scandal more than 20 public officials and businessmen from the Kirchners' close circle were accused of embezzlement and arrested. Nestor Kirchner passed away in 2010. Because of her parliamentary immunity, Cristina Kirchner has not gone to prison yet but faces multiple corruption charges. She decided to run as a vice-president in the 2019 campaign and invited Alberto Fernandez to be the Kirchnerist candidate for president.[31] He was unknown to the majority of voters. Fernandez served as a head of the cabinet of ministers during the first term of Cristina Kirchner but left her government in 2008 criticizing her populist policies. He was not involved in the Kirchner's corruption schemes. Fernandez won the 2019 presidential election.

30 https://www.bbc.com/news/world-latin-america-45049064
31 https://www.wsj.com/articles/argentinas-fernandez-moves-from-unknown-politician-to-next-likely-president-11566232733

4.3 Results

4.3.1 The effect of financial knowledge on factual knowledge about inflation

I measure the factual knowledge about relevant economic issues with the question about the dynamics of inflation. There is a linear relationship between the score on the financial literacy test and the probability of answering correctly this question about this highly salient economic issue. Graph 4.1 illustrates this relationship. Individuals with the maximum score on the financial literacy test are more than three times more likely to know the right answer compared to those with the minimum score. However, it is remarkable that even within the maximum score group only one third recognizes that inflation was low in 2017, given that there is no "do not know" option.

Table 4.1 displays the results of the OLS regression, in which the dependent variable is a dummy that is equal to 1 if a respondent chooses the correct answer to the question – whether the inflation was lower, higher, or the same in January-February 2017 than in the same period of the previous year (the inflation was lower). Controlling for a number of other factors, I find a strong correlation between financial knowledge and the expertise with respect to one of the important economic indicators. Each correctly answered question on the financial literacy test increases the probability of the right response to the question about inflation by 2.3 percentage points. There can be two mechanisms behind this relationship. On one hand, financial education is an indication of an individual's high internal ability that helps her both acquire financial knowledge and answer correctly questions about current political events. On the other hand, financial knowledge itself helps an individual navigate through a complex political world, treat new information in an unbiased fashion, and internalize relevant facts.

Consistent with the previous literature, Macri partisans have a 27.8 percentage point higher probability to answer the question about inflation correctly than do respondents from the rest of the sample. This is likely due to their loyalty to the incumbent, not to their genuine knowledge. In their opinion, because Macri is in the office, he must be doing well. In this particular case, their preconceptions lead to the right answer.

Notably, as in regressions with attitudes towards market-oriented economic policies presented in Chapter 2, education dummies are not significant in the presence of financial knowledge as an explanatory variable. The result suggests that what people have learned is more important than how many years they have studied.

Graph 4.1 The probability of the correct answer about inflation dynamics by financial literacy test score

"Inflation was low in 2017" is the correct answer to the question "Would you say that during January-June 2017 the inflation was higher, lower, or the same as in January-June 2016?". Financial knowledge is a categorical variable that ranges from 0 to 4.

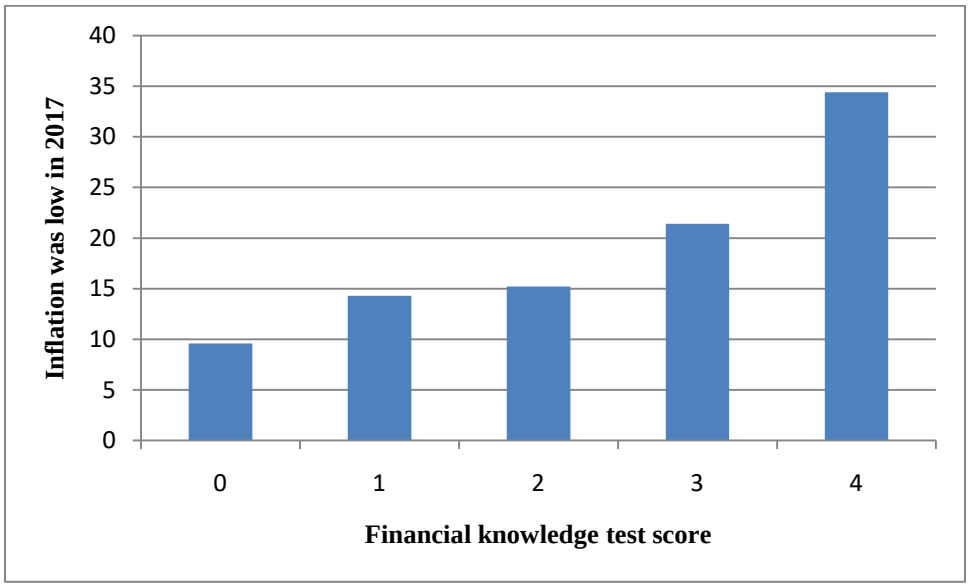

Table 4.1 The relation between financial knowledge and knowledge of policy-specific facts

The table presents the relation of financial literacy to the answer to the factual question about the dynamics of inflation. The variables are defined in Appendix 2. Age dummies include dummies for the following age categories - *23-35 years, 36-45 years, 46-60 years, >60 years.* Education dummies include dummies for the following educational degrees - *Primary school, High school, College and Graduate school*. Income dummies include dummies for the following income categories - *$500-$1,000, $1,000-$1,500, $1,500-$2,500, >$2,500*. The numbers in parentheses are robust standard errors. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Dependent variable:	Inflation was low in 2017
Financial knowledge	0.023
	(0.011)**
Macri partisan	0.278
	(0.041)***
Male	0.015
	(0.025)
Age dummies	Yes
Education dummies	Yes
Income dummies	Yes
R^2	0.172
Number of observations	819

4.3.2 The effect of financial knowledge on income reporting

Next, I analyze the relationship between financial knowledge and self-reporting of income. The dependent variable is residuals calculated from another regression in which self-reported income (defined as a categorical variable that ranges from 1 to 5) serves as an explained variable, and all relevant observable characteristics related to individual consumption serve as explanatory variables. Then, I rank the residuals in descending order. They range from 1.86 to – 2.54 in 2018 and from 1.97 to – 2.92 in 2019. This means that the largest discrepancy between income predicted by one's expenditures and self-reported income is equivalent to approximately 2.5-3 categories of income. The results displayed in Table 4.2 suggest that financially educated people are less likely to underreport their income. It is possible that individuals with higher financial knowledge are more likely to have formal employment. To control for this, I include different types of employment. The comparison base is the group of people who do not work (unemployed, retired, students, and homemakers). Compared to this group, public employees show the least underreported income. Professionals occupy the second place.[32] People with formal employment in a private sector tend to report more income than business owners, given the same level of expenditures. Consistent with the previous literature (Pissarides and Weber, 1989, Hurst et al., 2010), the self-employed are more prone to income underreporting than are people with any other type of employment.

Controlling for all types of employment, financial education remains statistically significant in both the 2018 and 2019 samples. Apart from the type of employment that may be associated with financial education, the relationship between knowledge and the truthful answer

[32] Professionals are usually people with a university degree who earn their living from a specified professional activity. They include doctors, architects, accountants, lawyers, etc. In my sample, they may work independently, have formal employment, or both.

to the question about income may be explained by a particular economic context in which the surveys took place. There is a positive association between financial knowledge and income. During good economic times, like in 2018, income rises, while expenditures may catch up with a lag. Those who benefit more from this situation, including the financially educated, report more income. If this explanation holds, then the effect of knowledge would disappear in bad economic times, like in 2019, when income declined though expenditures maintained at the same level for some time. However, the effect of financial knowledge persists across the two samples, although the magnitude of the coefficient is somewhat lower in 2019. Each correctly answered question on the financial literacy test reduces the income underreporting by 5.1 points in 2018 and by 3.8 points in 2019. The coefficients for *Financial knowledge* are statistically significant at the 1% level in both samples, although the difference does not appear to be large in absolute terms. If one income category presents a change of $500, the coefficient of 5% translates into an underreporting of $25.

My assumption is that people do not misreport their expenditures. If this assumption does not hold, another possible explanation for the association between financial knowledge and correct income reporting may be that financially knowledgeable people understand that if they underreport income, they also should underreport their expenditures. To mitigate this possibility, the questions about expenditures go first in the survey, so that respondents do not know that they will be asked about their income later. It may help reduce the misreporting of expenditures.

Table 4.2 The relation between financial knowledge and self-reporting of income

The table presents the relation between financial education and one's propensity to misreport her income. Unreported income is calculated with the regression in which self-reported *Income* is a dependent variable and *Male, Age, Education*, assets in ownership, recent purchases, spending on medical insurance, private school, travels abroad, as well as welfare benefits are independent variables. The numbers in parentheses are robust standard errors. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Dependent variable:	Unreported income 2018	Unreported income 2019
	(1)	(2)
Financial knowledge	-0.051	-0.038
	(0.012)***	(0.014)***
Professional	-0.342	-0.245
	(0.055)***	(0.06)***
Business owner	-0.197	-0.195
	(0.063)***	(0.076)**
Self-employed	-0.084	-0.019
	(0.045)*	(0.051)
Public employment	-0.375	-0.228
	(0.052)***	(0.056)***
Private employment	-0.236	-0.161
	(0.043)***	(0.049)***
Macri partisan	-0.025	-0.078
	(0.04)	(0.057)
R^2	0.029	0.014
Number of observations	3840	3725

4.3.3 The effect of financial knowledge on the relative weight of corruption

In the analysis presented below, I separate two phenomena. One thing is to perceive high levels of corruption. Another thing is to identify corruption as the main problem for economic development. An individual may perceive that the level of corruption is high and still consider recent economic fluctuations more important than corruption. Alternatively, she may perceive that the level of corruption is high and give more weight to corruption than to recent economic fluctuations precisely for that reason rather than because she knows that corruption constrains economic growth. Another possibility is that an individual does not perceive corruption to be higher than does an average individual in the sample but believes that it is the main obstacle for economic development.

First, I verify that financially educated people are not more concerned about corruption. There is no reason for them to be more concerned. One may say that financially educated people have more information about corruption scandals. However, the question does not test their factual knowledge about corruption but rather overall perceptions. In fact, previous research finds that more educated individuals and individuals with higher social status are less likely to think that "everybody is corrupt" (Melgar et al., 2010). I also find a statistically significant negative correlation between the probability to answer correctly the factual question about another important issue, inflation, and a high level of perceived corruption (not reported). I report the determinants of the high level of perceived corruption in Appendix 4.5 (the question was asked in the 2018 survey). The coefficient of *Financial knowledge* is insignificant.

Although on the baseline test of perception of corruption, financially educated people do not think that there is more corruption when compared to the rest of the sample, they do name corruption as the most important problem of the country in 2018. Moreover, among the listed

problems education is another potential driver for economic development in the long-run and one of the reasons for other mentioned problems, such as unemployment and poverty. Financially knowledgeable people also mention education as one of the main problems of the country (significant at the 1%). On the contrary, they do not think that issues related to the current economic conditions pose a problem for the country. There is a statistically significant negative correlation between financial education and naming inflation or poverty as the main problem (unemployment is insignificant).

One might expect that the notebook scandal would make the corruption problem more salient. However, this is not the case, even for the category of financially knowledgeable individuals. In general, fewer respondents selected corruption as the main problem in 2019 than in 2018 (20.1% vs. 24.5%). The coefficient for *Financial knowledge* becomes insignificant in 2019 (column (2) in Table 4.4), although the sign of the coefficient is consistent with the hypothesis. A likely explanation is that in that same interval between the surveys the economic crisis took place, and problems related to the state of the economy (inflation, unemployment, and poverty) became even more salient than corruption.

At the same time, *Financial knowledge* remains statistically significant at the 2% level in the regression with education as the main problem of the country in 2019. With all other problems as dependent variables (inflation, unemployment, poverty, crime), *Financial knowledge* is insignificant (not reported).

Because all estimates could become noisier due to the economic crisis, I append two samples to increase the power of the test (column (3)). Controlling for the year fixed effect, the coefficient of *Financial knowledge* is statistically significant. Each correctly answered question

on the test adds 1.2 percentage points probability that an individual chooses corruption as the main problem of the country (given that the average probability was 24.5% in 2108 and 20.1% in 2019). The coefficient for *Financial knowledge* is also statistically significant at the 1% level with *Education* as the main problem as the dependent variable (not reported).

This observation sheds light on the reasons for survival and success of corrupt politicians in developing democracies. Economic voting is a powerful tool that voters use to punish incumbents for bad economic times. They use it despite the fact that the main opponent is corrupt. When both drivers come into play, current economic conditions become more important to a larger number of voters, and the financially educated are not exceptions. This explanation is related to the argument that corrupt politicians can still deliver public goods or private gains to her voters, though the logical starting point is different. Voters' main aspiration is to punish an unsuccessful incumbent rather than to support a corrupt politician who delivers.

Table 4.4 Financial knowledge and corruption as the main problem of the country

The table presents the relation between financial knowledge and the choice of corruption as the main problem of the country. On average, 24.5% of respondents selected corruption as the main problem in 2018 and 20.1% in 2019. The numbers in parentheses are robust standard errors. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Dependent variable:	Corruption problem 2018	Corruption problem 2019	Corruption problem Pooled 2018-2019
	(1)	(2)	(3)
Financial knowledge	0.016	0.007	0.012
	(0.006)**	(0.006)	(0.004)***
Male	0.021	0.027	0.024
	(0.014)	(0.013)**	(0.01)**
Macri partisan	0.024	0.089	0.051
	(0.02)	(0.023)***	(0.015)***
Age dummies	Yes	Yes	Yes
Education dummies	Yes	Yes	Yes
Income dummies	Yes	Yes	Yes
2018 year dummy	No	No	0.043
			(0.01)***
R^2	0.013	0.012	0.013
Number of observations	3840	3725	7565

4.4 Conclusion

In this chapter, I discuss other attributes of financially educated people, beyond their policy preferences. I test three hypotheses – that people with higher levels of financial knowledge possess correct information about current economic events, that they do not hide their income, and that they give more weight to corruption than to current economic fluctuations in their evaluation of the country's challenges. I find support for the first two hypotheses and partial support for the last one.

First, I show that the probability of answering correctly the factual question about the dynamics of consumer prices rises with the score in the financial literacy test. This finding does not contradict the view regarding pervasive partisan loyalties as a driving force behind perceptions about current issues, including economic issues. But it does suggest that knowledge in a specific domain may also help citizens to learn and use relevant information about current issues. Second, I calculate the discrepancy between self-reported income and expenditures. I find that financially educated respondents are less likely to underreport their income. Finally, although financially educated people do not perceive a higher level of corruption than do other Argentines, they are more likely to think that corruption is the main problem of the country, as I show with the 2018 data. This result does not hold in 2019, likely due to the severe economic crisis that preceded the survey. This variability in results sheds light on why people elect corrupt politicians. Corruption does matter particularly for a group of sophisticated voters, but the state of economy is so important that even the most sophisticated shift their focus from corruption to the economic situation.

In sum, financially knowledgeable individuals seem to be more responsible, informed, and ethical citizens because they possess correct information about current political issues, do

not hide their income, and distinguish short-term from long-term problems for economic development.

4.5 Appendix

Table 4.5.1 Determinants of the high level of perceived corruption

The table presents the relation between financial knowledge and the perception of corruption. *Corruption* is a categorical variable that ranges from 0 to 7. It is equal to 0 if a respondent thinks that nobody in the following list (President and his administration, members of the parliament, government officials, local government representatives, tax officials, police, judges) is involved in corruption, and is equal to 7 if she thinks that all of them are involved. The numbers in parentheses are robust standard errors. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Dependent variable:	Corruption perception
Financial knowledge	0.065
	(0.041)
Male	0.175
	(0.092)*
Macri partisan	-1.378
	(0.129)***
Age dummies	Yes
Education dummies	Yes
Income dummies	Yes
R^2	0.052
Number of observations	3840

CHAPTER 5

Conclusion

5.1 Overview

According to the democratic theory, citizens are considered empowered principals who, individually and collectively, form and articulate their preferences to agents. They hold them accountable if politicians are not responsive to their will. On one hand, we have abundant evidence that reality fails to match this ideal. Voters do not know much about what is going on in the political arena. Despite this mismatch between the ideal and reality, democratic theory remains central in our thinking about the functioning of democratic government because it is normatively attractive and we do not have a better one. On the other hand, we have evidence that people are capable of learning, and new information enlightens them. Therefore, more education sounds like a feasible solution to the problem of citizens' knowledge gap.

How knowledgeable people should be and what exactly they should be encouraged to know are fundamental questions in a democracy. It is not surprising that scholars of political behavior have attempted to estimate the effect of knowledge on political decisions. It is not obvious how to measure this effect. Since the dawn of public opinion research, general political knowledge has become a conventional measure of individual competence. Suppose one knows how many chambers there are in the parliament and the name of her senator, i.e. scores high on a general political knowledge test. Does this information actually help to form an opinion about costs and benefits regarding free trade or the degree of state intervention in the economy? The

logical path from this kind of knowledge to policy preferences is not obvious. Researchers acknowledge that general political knowledge is more a reflection of general interest in politics and the degree of one's association with political groups than a base for the formation of preferences (Zaller, 1992).

What if we measure the effect of information that directly addresses each particular policy? For example, if one is informed that unemployment is declining, she may be less willing to support protectionist measures to save jobs. If one learns that a number of women died because of illegal abortions, she may be more likely to be in favor of the legalization of abortion. If one is up to date about the dynamics of consumer prices, she may approve or disapprove her union's wage offer. Numerous experimental studies show that policy-specific information shapes political judgments. Unfortunately, in the real-world setting, it often does not work in the same fashion. In general, voters are largely inattentive to this kind of information. Politicians compete for their scarce attention and sometimes are able to convey their agenda thanks to factors that usually have little to do with information trustworthiness. Voters learn what they want to learn. In sum, general political knowledge is too general, and policy-specific knowledge is too specific.

In this dissertation, I build on the literature that studies the effect of information on policy preferences by suggesting a different measure of knowledge. During our life, we receive a lot of knowledge in classrooms and through experience. This knowledge is mostly accumulated through careful elaboration in a politically neutral context. Some of this knowledge may be useful for navigating a complex political world, including forming preferences regarding an infinite number of policies. If we find a way to separate relevant knowledge for a particular policy domain, we may estimate its effect on policy preferences. This variable can become an important consideration for governments, whose long-term goal is to increase the quality of

democracy, and for political groups, who seek to amplify points of connection with their followers.

In this study, I use the Global Financial Literacy test as a proxy for economic knowledge. I estimate whether test results are associated with preferences for pro-market economic policies. This test was developed by Standard & Poor's and used to evaluate financial literacy across the globe. In addition to this well established test, I adapt a 40-question economic literacy quiz developed by the Council for Economic Education into a shorter 4-question quiz. This test evaluates economic knowledge more straightforwardly. I use it as a robustness check for my main finding.

Economic knowledge might be important for economic policy preferences because it helps understand relevant causal relationships in economics. This does not contradict the view that knowledge of policy-specific facts also helps shape policy preferences. It is likely that both types of knowledge are necessary to evaluate the effects of a policy. For example, to form an informed opinion about protectionist measures aiming to save jobs, it is useful to know the dynamics of an unemployment rate (a policy-specific fact) and how protectionist measures affect a labor market (economic knowledge). When it comes to the financial literacy test that also measures competence in math, I may find a relationship between the test results and policy preferences because the test may be a proxy for knowledge of policy-specific facts and understanding of the relevant causal relationships. Alternatively, basic mathematical competence may be needed in addition to policy-specific knowledge and understanding of causal links to evaluate the effects of a policy.

5.2 Summary of findings

I asked respondents to complete the Financial Literacy test of three surveys I conducted in Argentina in the months of January and February in 2017, 2018, and 2019. In total, 10, 457 individuals completed the survey in 30 localities in the city of Buenos Aires, Greater Buenos Aires area, and the Buenos Aires province during three years.

My major goal is to assess the effect of financial knowledge on preferences for market-oriented economic policies. In chapter 2, I test the hypothesis that a higher level of knowledge is associated with support for the elimination of trade barriers, elimination of subsidies, and integration into the world financial markets. I show that, unlike other measures of individual competence, such as political knowledge and knowledge of policy-specific facts, financial knowledge is not correlated with party identification. If it were correlated, it would be challenging to separate the effect of knowledge from the effect of partisanship, which is the strongest driver for policy preferences. An additional challenge is to disentangle the effect of knowledge from the effect of social status. The problem is that wealthier better-educated males tend to be more financially educated. They also are more likely to support pro-market economic policies. They may support such policies because they benefit from the free market or because they know that fewer distortions in the economy are beneficial for long-term economic development. I address the issue of confoundedness of explanatory variables by conducting my analysis in two different samples. I do not run just one cross-sectional regression. I argue that the economic crisis in the interval between the surveys of 2018 and 2019 converted the relative winners in 2018 into the relative losers in 2019. If the effect of financial knowledge is attributable to the winning status, I would find the correlation between the higher level of knowledge and support for market-oriented policies in 2018 but this relationship would decline

or appear in 2019.[33] However, I observe this relationship in both years. I suggest that it is because of the effect of knowledge itself. Specifically, in the 2018 estimates I find that each correctly answered question on the test adds to the approval of the open economy and the elimination of subsidies 3.9 percentage points and to the debt payment 3.7 percentage points, with an overall level of support ranging from 29.7% to 38.3%. In 2019, more financially literate people are more supportive of the opening of the economy by 2.5 percentage points, the elimination of subsidies by 3.4 percentage points, and the debt payment by 4.1 percentage points, while the average approval varies from 27.3% to 34%. The winning status can be broken down into two variables – being a recent beneficiary of policies and being generally wealthy. My identification strategy, to a greater extent, addresses the confoundedness between financial knowledge and recent income rise but not so much between financial knowledge and general wealth. However, my data show that the support rate of the pro-market policies declined sharply from 2018 to 2019 among the groups with higher income. The income level captures both general wealth and recent gains.

Economic knowledge measured with the adapted economic literacy quiz is also not correlated with partisan ties. However, a better score on the test is also associated with higher approval of pro-market economic policies. The quiz was included only in the 2019 survey. Each correctly answered question on the quiz adds 1.8 percentage points to the support for the open economy, 1.6 percentage points to the elimination of subsidies, and 4.2 percentage points to the

[33] I do not include the results of the 2017 sample because I did not have the same worded question about partisan inclinations and the 2017 conditions are similar to those of 2018. However, I find the correlation between financial knowledge and support for pro-market policies in 2017.

debt payment. The coefficients of the financial knowledge test results and the economic literacy quiz results are always significant at the 1% level of significance.[34]

In chapter 3, I try to establish a causal link between knowledge and support for pro-market policies. In this vein, I conduct two identical survey experiments in the 2018 ad 2019 surveys. The experimental treatment is similar to that in studies that measure the effect of policy-specific facts (Gilens, 2001, Bullock, 2011). I provide respondents in the treatment condition with information about the distortive incentives that subsidization and trade restrictions create for economic agents. They can use this information to answer questions about their attitudes towards pro-market policies recently implemented in Argentina during the Macri administration in 2016-2019. There are two kinds of treatments – what I call a theoretical "economic lesson", which includes a passage about the effects of policies implemented by the previous Kirchner government, and a "case study", which includes a passage on the recent experience of neighboring Venezuela under Nicolas Maduro. I find that respondents who received the treatment are more likely to support two out of three economic policies in question in 2018. Specifically, the probability of approving the elimination of trade restrictions is higher by 8.3 points and the debt payment by 9.6 points among those who received the "economic lesson." Those who read about Venezuela's experience have a higher probability of favoring the open economy by 10.2 points and the debt payment by 8.8 points. In 2019, the coefficients of the treatment dummies do not reach the conventional level of significance, although their signs are consistent with the hypothesis. I observe this result despite the fact that I had 45% more observations in both treatment and control groups. I explain this variability in results by the economic shock that affected the entire population simultaneously. It is possible that the shock

[34] The only exception is the economic literacy quiz coefficient in the model, where the elimination of subsidies coefficient is significant at the 5% level.

made it more difficult to estimate the treatment effect by somehow affecting unobservables and making observable controls noisier.

In chapter 4, I ask the question whether there are other outcomes, beyond policy preferences, that may be relevant for the quality of democratic government and for which financial knowledge is also important. In particular, I test three hypotheses. First, I study whether financially educated individuals are more likely to follow economic news and internalize relevant information. I find an association between the score on the test and the probability of answering correctly the question: "Would you say that during January-June 2017 the inflation was higher, lower, or the same as in January-June 2016?" (it was significantly lower). This probability is greater by 2.3 percentage points with each correctly answered question on the test, and this relationship is linear. This evidence suggests that fundamental knowledge helps increase policy-specific knowledge. It becomes easier for financially literate people to pay attention and internalize relevant information about economic issues. Alternatively, they are correlated between each other but shape policy preferences through independent causal mechanisms – fundamental knowledge ensures understanding of causal relationships in economics and policy-specific knowledge ensures understanding of a context.

Second, I analyze whether financially knowledgeable individuals tend to report their income properly. Relevant literature produces mixed results. On one hand, people with more education are likely to respect the rule of law. They understand why it is important to pay taxes and where their taxes go. They understand that formal income give access to financial products, and they use these products. On the other hand, the more educated usually have higher incomes; therefore, they pay more taxes, which they may be reluctant to do. They also have knowledge to figure out how to avoid taxes. I find evidence for the former argument. For each individual, I

predict income based on her expenditures. Then, I compare predicted income with self-reported income and rank respondents by the magnitude of difference. I assume that those with large spending and low self-reported income are likely to underreport their income. Each correctly answered question on the financial literacy test reduces the income underreporting by 5.1 points in 2018 and by 3.8 points in 2019, with residuals ranging from 1.86 to – 2.54 in 2018 and from 1.97 to – 2.92 in 2019.

Finally, I examine whether people with a higher level of financial knowledge have a different perspective regarding problems that are detrimental for long-term economic development when compared to average respondents. I find that the financially educated are more likely to choose corruption as the main problem of the country in 2018 and less likely to choose inflation and unemployment. I interpret this result as their ability to distinguish between causes of long-term growth and indicators of short-term economic fluctuations. Two simultaneous shocks in the interval between the 2018 and 2019 surveys – economic crisis and "the notebook scandal" - revealed the degree of corruptness of the previous Kirchner administration. Other things equal, the information disclosed thanks to "the notebook scandal" would make the issue of corruption more salient. However, even the most financially educated do not select corruption as the main problem of the country in 2019. This result suggests that when both the economy and corruption come into play, people find the former more important. At the same time, in both 2018 and 2019 they name education, arguably, another important factor for long-term economic development.

In sum, I provide evidence that financial knowledge may help citizens follow the economic news, recognize the benefits of honest income reporting, and distinguish long-term economic problems from short-term fluctuations.

5.3 Suggestions for future research

In this dissertation, I provide evidence of the strong link between financial knowledge and preferences for pro-market economic policies. I argue that this link might be causal because I find consistent results in different contexts and control for other important drivers for policy preferences. I use the measure of knowledge that is uncorrelated with the most important factor of policy preferences – party identification. In support for my main finding, I conduct the survey experiment and demonstrate that people may consume new information and change their preferences accordingly. However, alternative explanations of the relationship between financial knowledge and support for economic policies may exist.

A field experiment would help to establish causality between financial knowledge and preferences for market-oriented policies. What kind of experiment could that be? For example, randomly selected individuals could be given a three-month course on basic microeconomics in which they are introduced to the main concepts of the field.

In addition to solving the causality problem, a field experiment would also help to address the limitations of the treatments that I use in this dissertation. First, in chapters 2 and 4, I estimate the effect of financial knowledge. The treatment is the knowledge of basic financial concepts that an individual accumulated during her life and demonstrated at the time of completing the survey. I assume that such knowledge can be obtained in a classroom by taking a financial (and arithmetic) course or through life experience by dealing with banks and investment instruments. A young college graduate and an old investor can do equally well on the test, although the process of knowledge acquisition might be different for each one. It is unclear whether they would have the same values and perceptions that would lead them to take positions on economic issues. If it is just knowledge itself, their policy preferences would be identical. If

there are unobservable factors that accompany the process of knowledge acquisition, their positions on economic issues might not necessarily be the same. A field experiment would help to control the uniformity of the treatment.

Second, in chapter 3, I provide respondents with a standard survey treatment – two short passages whose aim is to inform participants about certain topics. In my case, this information is about the consequences of leftist economic policies in Argentina and Venezuela. Survey experiments become popular among scholars who study public opinion because it is easy to manipulate the nature and the framing of information provided. Also, the treatment is not particularly different from the real world settings in which individuals encounter pieces of information from multiple sources. However, there is a drawback that often arises with this kind of survey treatment. It is possible that after having read a text, an individual learns and internalizes this information. It is also possible that she infers what kind of answers she is expected to give based on the information provided and does so in subsequent questions. This is the difference between learning and priming. In a cross-sectional survey, it becomes impossible to discriminate between mechanisms behind the causal effect. In a field experiment, the treatment and the measurement of the outcome (perhaps through a survey) could take place at different points in time. Moreover, since the delivery of the treatment itself takes time, the problem of possible priming would be solved because individuals are not immediately supplied with clues to the questions they are asked.

Also, it might be interesting to look at other political outcomes for which financial knowledge might matter. The main outcome that I study in this dissertation is policy preferences. In addition to these, I look at the expertise about current economic issues, income reporting, and perceptions of the main problems of the country. In future research, it might be insightful to look

at the effect of knowledge on support for populism. Over the last years, the world is experiencing an unprecedented wave of populist politics both of the left-wing and right-wing type (Guiso et al., 2017). Scholars try to investigate the drivers of voters' demand for populism. I suggest that financial knowledge might be one of the factors that could reduce preferences for populist politicians. The effect of knowledge can be studied in a specific country with a clear presence of populist movements or cross-nationally.

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